IMAGINATION AND DIVERSITY IN THE PHILOSOPHY OF HOBBES

JUHANA LEMETTI

ACADEMIC DISSERTATION

To be publicly discussed, with the permission of the Faculty of Social Sciences of the University of Helsinki, for public examination in auditorium XII of the Main Building (Fabianinkatu 33) on July 20th, at 12 o'clock.

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For Kristiina and Aarni

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In Siltavuorenpenger, June 8th, 2006
Juhana Lemetti

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ABBREVIATIONS AND REFERENCES

The following abbreviations, editions, and notations are used throughout the work. If not specified, all references are to pages. The dates of composition and/or publication of Hobbes's works are indicated in the square brackets.

The Answer to Davenant:	*The Answer of Mr Hobbes to Sir William Davenant's Preface before 'Gondibert'* [1650], in *EW*, IV.
Appendix to Leviathan:	*Leviathan* (with selected variants from the Latin Edition), ed. E. Curley (Indianapolis: IN, 1994[1668]), 498-548.
Aquinas:	I have used the following abbreviations: *Summa Theologiae* [*ST*], tr. English Dominicans (New York, 1981), *Summa Contra Gentiles* [*SCG*], tr. by James F. Anderson (Notre Dame, 1975), and *A Commentary on Aristotle's De Anima* [*CDA*], tr. by Robert Pasnau (New Haven, 1999). References in the first follow the classification of Aquinas, which consist of questions, answers, replies and is based on the medieval practice, in the second references are given by parts, chapters, and (when necessary) page numbers, and in the third by page numbers.
Aristotle:	*The Complete Works of Aristotle*, 2 volumes, ed. J. Barnes (Princeton: NJ 1984). Independent works are referred to by the standard Latin name and follow the conventions of the Bekker system.
Augustine:	I have used *The Fathers of the Church* series (for further details, consult bibliography). The exception are *De Genesi ad Litteram* and *Enchiridion* from the *Ancient Christian Writers* series.
Behemoth:	*Behemoth; or the Long Parliament* [1679], in *EW*, VI.
Bible:	When referring to the Bible I use the normal conventions. For example, *Romans* 13:7 refers to the verse 7 in the book 13 of St. Paul's letter to Romans in the New Testament.
Brief Lives:	I have mainly used the text that appears in *Elements*. But as it is not complete I have occasionally consulted John Aubrey, *Brief Lives, Chiefly on Contemporaries, set down by John Aubrey between the years 1669-1696*, ed. A. Clarke (Oxford, 1898) to which I refer to as *Brief Lives* (Clarke).
Rhetorique:	*A Briefe of the Art of Rhetorique*, in Harwood (ed.) 1986[1637], 33-128.
Chatsworth Catalogue:	*Catalogue of the Library at Chatsworth*, 4 volumes, ed. Sir J. P. Lacaita (London, 1879). Though the catalogue was printed by Chiswick Press London, the publication was a private enterprise of William 7th Duke of Devonshire, who published 200 small and 50

large copies. I have used the large copy number 12, which was presented to the Bodleian library.

Concerning Body: *Elements of Philosophy. The First Section, Concerning Body* [1656], in *EW*, I. I have occasionally used the Latin edition, *De Corpore* (*Elementarum Philosophiae, sectio prima: De Corpore* [1655], in *OL*, I). References to both editions are given by Roman (chapter) and Arabic (article) numerals, followed (when necessary) by page numbers.

Correspondence: *The Correspondence of Thomas Hobbes*, 2 volumes, ed. N. Malcolm (Oxford, 1994). References are given by the number of the letter followed by page numbers.

Critique du 'De Mundo': *Critique du* De Mundo *de Thomas White*, eds. J. Jacquot and H. W. Jones (Paris, 1973 [1643]). When consulting the English translation of the work I use the customary title *Anti-White* (Hobbes, 1976). References to both works are given by Roman (chapter) and Arabic (section) numerals, which are followed (when necessary) by page numbers.

Decameron Physiologicum: *Decameron Physiologicum, Or Ten Dialogues of Natural Philosophy* [1678], in *EW*, VII.

De Homine: *Elementarum Philosophiae, sectio secunda: De Homine* [1658], in *OL*, II. References are given by Roman (chapter) and Arabic (section) numerals, followed (when necessary) by page numbers.

Dialogue: *Dialogue Between a Philosopher and a Student of the Common Laws of England*, in *Writings on Common Law and Hereditary Rights*, eds. A. Cromartie and Q. Skinner (Oxford 2005[1675/1681]).

Elements: *Elements of Law: Human Nature and Concerning Body Politico with Three Lives*, ed. J. C. A. Gaskin (Oxford, 1993[1640]). References are given by Roman (chapter) and Arabic (article) numerals, followed (when necessary) by page numbers.

EW: *The English Works of Thomas Hobbes*, 11 volumes, ed. Sir William Molesworth (Aalen, 1962[1839-1845]). References are given by volume and page numbers in a volume.

Leviathan: *Leviathan*, ed. Richard Tuck (Cambridge, 1998 [1651]). References are given by Roman (chapter) numerals and page numbers, which follow the pagination of the Head edition and are indicated in the margins of the central editions of *Leviathan*.

Liberty and Chance: *Questions concerning Necessity, Liberty, and Chance* [1656], in *EW*, V.

Liberty and Necessity: *Of Liberty and Necessity* [1654], in *EW*, IV.

OL: *Thomae Hobbes Malmesburiensis opera philosophica quae latine scripsit omnia*, 5 volumes, ed. Sir William Molesworth (Aalen,

	1961[1839-1845]). References are given by volume and page numbers in a volume.
On the Citizen:	*On the Citizen*, ed. Richard Tuck and tr. M. Silverthorne (Cambridge, 1998[1651]). I have occasionally used the Latin edition *De Cive*, ed. H. Warrender (Oxford, 1983[1642]). References to both works are given by Roman (chapter) and Arabic (article) numerals, followed (when necessary) by page numbers.
Plato:	*The Collected Dialogues*, eds. Edith Hamilton and Huntington Cairns (Princeton: NJ 1961). Independent dialogues are referred to by the standard English name and references are given by the Stephanus numbers.
Six Lessons:	*Six Lessons to the Professors of Mathematics* [1656], in *EW*, VII.
Thucydides:	'The Epistle Dedicatory', 'To the Readers' , and 'Of the Life and History of Thucydides'[1629], in *EW*, VIII.
The Verse Life:	*The Verse Life* [1679], tr. by anonymous contemporary, in *Elements*, 254-264.
The Virtues of an Heroic Poem:	'Concerning the virtues of an heroic poem'[1673], in *EW*, X.

I PROLOGUE

Thomas Hobbes was a scandal. This is strange because what he merely tried to explain was what many of his contemporaries already believed. An example is Hobbes's *Dialogue* on common law where he disagrees not so much with what is taken to be just and unjust, but on what the authority of laws is based on. On more general terms, justification of knowledge not stating facts, is central in Hobbes's thinking.

Samuel Mintz once described Hobbes's character in an illuminating fashion: 'a fearful man with an adventurous and searching mind'.[1] There is some evidence that Hobbes was a fearful man,[2] but this work will study 'an adventurous and searching mind'. It does this through two themes. First, by examining different aspects of Hobbes's notion of imagination, and, second, by inspecting the multifaceted nature or, as I call it, the diversity of Hobbes's philosophy.

The prologue in hand has three topics. After touching some methodological issues, it draws a familiar picture of Hobbes's philosophy and gives some critical remarks on the standard reading of his philosophy. The last section of the prologue offers a preliminary summary of the thesis.

RESTRICTIONS AND LIBERTIES

The recent renaissance in Hobbes studies has produced an industry[3] that concentrates not only on discussing various aspects of his thought, but also addresses the problem of how to study past thinkers. In this respect, the work in hand tries to avoid two kinds of errors. The first is the illusion that we can give a perfect reconstruction of past ideas, the second is an idea that we can forget the facts. Below I will discuss in more detail the principles of interpretation that guide my study of Hobbes's philosophy, but as a general outline, I have found Noel Malcolm's short methodological reflection useful:

> When A influences B, there may always be reasons (in principle, separately statable) why B was *apt* to be influenced by A; and at the same time what B gets out of, or sees in, A may well be different from what C, D, or E get out of him—again, because of factors in B's intellectual

[1] Mintz 1962, 1.

[2] Above all in the opening lines of his verse autobiography, but see also *Correspondence* Letters 4 and 5, where Hobbes reports on the problems of travelling in Europe of his day.

[3] Goldsmith (1991) has provided an overview to the modern Hobbes scholarship. See also Lamprecht's (1940) essay on the reception of Hobbes.

> formation that are both more general, and more specific to B. The nexus of 'influence' is thus a much more complex interaction than any mere transfer of ideas from one person to another.[4]

The passage has three noteworthy points. The first is that thinkers are more conscious of the origins of their ideas (they are 'apt to be influenced') than is thought by those who interpret these ideas. For example, and as will be explained in more detail later, when discussing what scientific knowledge is, Hobbes uses rather traditional vocabulary (usually traced back to Aristotle's distinction between *apodeixis tou dioti* and *apodeixis tou hoti* in *Analytica Posteriora*).[5] The second point is that people read texts with different motivations and background information. Hobbes's volatile relationship to the tradition of *ars rhetorica* is an example of this. Depending upon which interpretation we consider a plausible one, sometimes he seems to approve the use of eloquence in civil philosophy, sometimes not. The last point that Malcolm's formulation raises is the most obvious: influence is a rather complicated issue which cannot be solved by pointing out some textual similarities between thinkers, but which always requires a more holistic account. Therefore, despite the fact that Hobbes uses Aristotle's example of the sun[6], this does not imply that his conception of the imagination is an Aristotelian one, though the two have some things in common. To say where conceptions, theories, and ideas differ from and resemble each other calls for two kinds of methodological guidelines: restrictions and liberties.

The first restriction in a study of the history of philosophy are facts, by which I refer to two things: a text that is studied and other source material that is available, for example, correspondence, library catalogues, and other documents, as well as contemporary reactions and reports. When it comes to supplemental material, I have used some, but in a particular way. I do not refer to Hobbes's letters or the general intellectual background of his philosophy primarily in order to demonstrate a historical truth, but in order to exemplify his ideas and to give some factual evidence for a claim at hand. Even though there are places in this work where I will indicate something about the context of a specific question or a problem that is under discussion, my thesis should be considered a philosophical rather than a historical exploration.

Texts are central to the work at hand. This requires analyses of passages in Hobbes's work, a necessary task in order to do justice to his careful and versatile thinking. His discussions do not touch only upon one subject, but are written so that they, quite often (but not always), set up a chain of ideas or a line of arguments that relate to one another and make sense only if the different trails of thoughts are seen as a whole. To give a familiar example, Chapter I of *Leviathan* is a summary of Hobbes's

[4] Malcolm 2002, 537 n. 294.

[5] *Analytica Posteriora* 71b10-19.

[6] Aristotle, *De Anima* 428b2-5. Used again in *De Insomnis* 460b18-20. For Hobbes's adaptation, see *Elements* II.5, 23-24; *Decameron Physiologicum*, 80-81; and *Correspondence* Letter 19, 33-34.

theory of sense, but to this is added the first occasion of the critique of Schools. Even though the critique is in the form of the scholastic theory of perception, it does not only seek to rebut this doctrine but also to give an unfavourable view of the whole intellectual movement. The critique, then, is at the same time philosophical and ideological.

A salient question under this topic is Hobbes's texts and their mutual relationship. My study will take *Leviathan* as its starting point, but hopefully avoids a fetishistic approach to Hobbes's *magnum opus*. Although I give some parallels between *Elements*, *De Cive*, and *Leviathan*, when trying to locate and determine the status of *Leviathan* among Hobbes's works, I do not seek to trace the development of Hobbes's political ideas. The work in hand seeks to give a more comprehensive account of Hobbes's thinking and this requires us to pay attention to both works that preceded and followed *Leviathan*. Some of these have more direct connection to *Leviathan*. For example, *Critique du 'De Mundo'* includes the basic ideas of Hobbes's psychology and, moreover, anticipates his philosophy of language. Equally, *The Answer to Davenant*, *The Virtues of an Heroic Poem* and *Thucydides* are instructive when trying to make sense of the economical summaries on poetry and history that appear in Chapter VIII of *Leviathan*.

What are of special interest here, are works that came after *Leviathan*. These are important not only on the general level, but also because they have a link to some of the ideas that arise from *Leviathan*. A central notion is Hobbes's conception of knowledge. Through this some later works, such as *Six Lessons to the Professors of Mathematics* and *De Homine* which have been sometime depicted as failures, sometimes as anachronisms, and sometimes as politics, become central.

The main point of this short discussion is the idea that though it is a masterpiece, *Leviathan* is still part of Hobbes's philosophical thought. The book has become a classic of intellectual history and its richness is astonishing, but this should not diminish the value of other, less-studied works, such as the commentary to White's *De Mundo*, also a book full of new, interesting ideas, often in a form that makes it easier to trace the origins of Hobbes's ideas.

The second restriction deals with Hobbes's intellectual formation.[7] The question of influence is not an easy one with Hobbes, who was both secretive on the origins of his ideas and always ready for a debate.[8] In general, the question of influence will not be studied as a separate issue. Instead, during the course of the thesis, I shall try to add something new to what has already been said of the origins and genesis of the different ideas in Hobbes's philosophy. In addition, I wish to ask a basic question: what did Hobbes read?[9]

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[7] On the intellectual origins of Hobbes, see Malcolm 2002, essay I; Skinner 1996, Chapter 6; 2002, Vol. III, Chapters I and II.

[8] A valuable study of Hobbes as troublemaker is Jesseph 1999.

[9] For a recent view of the subject, see Thornton 2005, 11-12, notes 106 and 107 there.

Hobbes, notoriously, boasts how little he read, though this notion should be immediately qualified. First, though he very seldom refers to other authors, it is plausible to think that Hobbes is following the convention of his time. In a similar fashion, for example, Descartes and Bacon rarely mention their sources. It was simply of little use to give exact references, because education confirmed that every literate person was familiar with the classical works. Second, the fact that Hobbes 'had very few books [...and Aubrey] never saw (nor Sir William Petty) above half a dozen about him in his chamber'[10] is not a substantial evidence that Hobbes did not read. Third, besides individual pieces of evidence,[11] one needs to take into account the fact that Hobbes was in the service of a literary family of the Cavendishes, who had a wide and active interest in the intellectual currents of the time.

An important source of what Hobbes read is then the Cavendish library and in particular the library in one of the Cavendish residences, Hardwick Hall. There is no modern critical edition of the catalogue of the library at Hardwick Hall[12], but a catalogue of the books of Cavendish family does exist. The enterprise was organised by William Cavendish (1808-1891) 7th Duke of Devonshire and carried out by Sir James Phillip Lacaita (1813-1895). Hobbes is mentioned in the preface of the catalogue,[13] but we are unable to say much on that basis. However, from the preface we learn some things about how the Chatsworth library was formed.

Firstly, though there were early acquisitions by the First and the Second earl, according to Lacaita it was the Third earl (also William and the one in whose service Hobbes spent most of his career) who started to build up the collection: 'He was "bred to book", and many of the early editions of the classics, as well as of French and Italian works bear his book-plate, showing that they were collected by him during his long life'.[14] Even so, it is often unclear when a certain edition exactly entered the collections. Though the catalogue reports many early editions, many of these could have entered the library collections only in the 18th century, when William-Spencer, the Sixth Duke

[10] *Brief Lives*, 239.

[11] For example, the story in *Brief Lives* according to which Hobbes started to buy pocket-size books in order to restore his Latin to its former level. Another piece of evidence is how familiar Hobbes was with natural philosophy and mathematics. For the former, see, for instance, the chapter discussing comets in *Critique du 'De Mundo'* and although here the documentation of sources is partly due to the excellent work of the editors, this would not have been possible without distinguishable sources. The interest of comets traces back to Aristotle's *Meteorologica*. For a documentation of some early Medieval views, see the volume edited by Thorndike (1950).

[12] It should be mentioned that Hobbes drew up two catalogues of the Cavendish books. The first is from the 1630s and the second from the late 1650s. The latter was complied by James Wheldon but Hobbes directed the work. See (respectively) MS E1 A and MS Hardwick, unnumbered. I have here relied on Malcolm 2002 (96, 111, and 458). The study of MS Hobbes E1 A (started by the late Richard Talaska and titled *The Hardwick Library and Hobbes's Early Intellectual Development*) has not yet been published.

[13] For entries, see *Chatsworth Catalogue*, I, vii, xii.

[14] *Chatsworth Catalogue*, I, xiii.

purchased the library of Thomas Dampier (1748-1812), Bishop of Ely, who 'was one of the most learned bibliophiles of his day [and] collected a large library of rare editions of the Greek and Latin classics'.[15] Additionally, the Cavendishes had many residences which all contained some books and the various collections were not brought together before 1815.[16] In the light of this, it seems reasonable to conclude that the library had already in the beginning at least one edition of classical works, such as Aristotle and Cicero, and though it remains in many cases unclear exactly what edition he used,[17] it is likely that Hobbes had access, which he also utilised, to a diverse collection of works. As Aubrey concludes: 'He had read much, if one considers his long life; but his contemplation was much more than his reading. He was wont to say that if he had read as much as other men, he should have known no more than other men.'[18]

The third restriction concerns the way past ideas are explained and expressed. It would be, if not a mistake, at least limiting to stay within a purely internal conceptual framework, especially if by this is understood only those concepts, doctrines, and theories that are explicitly mentioned by an author, or were available to him on the basis of what we know generally about the history of a language, say, by means of dictionaries. Therefore, terms such as 'psychology' and 'epistemology' will be used when discussing Hobbes's theories of human nature and knowledge, even though these are, strictly speaking, later inventions. But then again it is crucial to make a difference between adopting terms to elucidate past ideas from incorporating ideas to explain them. An example may help to clarify the difference.

Watkins has described the shortcomings of Hobbes's philosophy in the following way: '[i]n Hobbes's day two distinctions which are now fairly commonplace were not drawn sharply: that between *cosmology* and *epistemology*, and that between a *scientific* and a *metaphysical* cosmological theory about the external world, or some aspect or part of it'.[19] This may be true, but the question can be posed how much does this help us to understand Hobbes's thinking? Watkins's analysis does not necessarily do justice to Early Modern philosophy. Early Modern philosophy can be characterised as an intellectual movement that was particularly aware of the latter distinction, but which also maintained that natural science is always the best possible, as well as the most plausible

[15] *Chatsworth Catalogue*, I, xvi.

[16] *Chatsworth Catalogue*, vol I, xvii.

[17] Some of the works are also listed in Hamilton 1978, but the list provided there is short. During the course of my thesis, I will indicate possible works that Hobbes could have used.

[18] *Brief Lives*, 240. Compare this to what Aubrey writes a little earlier: 'I heard him say, that at his lord's house in Derbyshire there was a good library, and books enough for him, and that his lordship stored the library with what books he thought fit be bought; but he said, the want of learned conversation was a very great inconvenience' (*Brief Lives*, 236).

[19] Watkins 1989, 19.

hypothesis of what is 'there anyway'[20] – Leibniz, I believe, is the best spokesman of this position. Therefore, at least the distinction between scientific and metaphysical theory was present in Early Modern philosophy and in Hobbes, but not in the same sense as this distinction was to be understood in the 20th century.

Moving to the terrain of explicit methodology, it has become customary to make a distinction between two approaches in the history of philosophy: the contextualist and the textualist approach.[21] To simplify, the idea of putting a thinker within a context requires that at least three factors are take into account: the historical factor, namely that a concept, an idea, or a theory always has a pedigree; the contemporary factor by which is meant here that ideas are always born in a certain intellectual context and as a result of the exchange of ideas; and the socio-ideological factor, that is, the impact that historical and political conditions have on intellectual activity. The second option, textualism, puts the preference in the text and tries to understand it on its own terms and in a systematic fashion without putting special emphasis to the historical context.

The distinction between the contextualist and the textualist approach also reflects the difference between the historical and the philosophical approach.[22] The historical approach tries to give a precise and well-documented account of past thinkers and their ideas. Here such things as influence, correspondence, and historical events are relevant. Nevertheless, something that has been aptly called 'the cult of fact' should not distract us.[23] A perfect construction is never possible and therefore we need to interpret the evidence, and here the philosophical approach enters to the picture. The idea of coherence is slightly different in philosophical and historical examinations. Instead of the demand for authenticity, the aim in philosophical interpretations is hermeneutic. The different approaches answer different kinds of questions, and they are better understood as supporting than competing with each other. Whether an interpretation is historical or philosophical is not, however, a matter of taste, but of emphasis. My own approach is closer to the philosophical than the historical; my aim is to clarify Hobbes's ideas as much as possible, but without distorting their original content.

An example will elucidate my point. In a letter to William Cavendish (1617-1684), the Third Earl of Devonshire, Hobbes writes: '[i]n thinges that are demonstrable, of w^{ch} kind is y^{e} greatest part of Naturall Philosophy, as depending vpon the motion of bodies so subtile as they are inuisble'.[24] It would be absurd to say that this is not a genuine statement of Hobbes, because he speaks of invisible bodies and these kinds of entities do not belong to his materialist and empiricist philosophy. Equally, it would be

[20] The phrase comes from Bernard Williams's *Descartes: The Project of Pure Enquiry*.

[21] For a discussion, see Hoekstra 2004, 71-72.

[22] Examples of the kind of historical approach I have in mind are Sommerville 1992 and Overhoff 2000. Parallels in the field of philosophy are Gauthier 1969; Kavka 1986; and Lloyd 1992.

[23] Skinner 2002, Vol. I , Chapter 2.

[24] *Correspondence* Letter 19, 33.

hasty to conclude that during the writing of the letter Hobbes was under the influence of Aristotelian physics and considered some sort of incorporeal substances possible, for there is no sign of a doctrine of intelligible forms in the writings of Hobbes from the period in question or afterwards. Instead, the explanation could be very trivial. There are some things that we are not able to perceive either with our eyes or with scientific instruments, but this does not imply that we are unable in the future to perceive this invisible motion. Natural philosophy is not demonstrable science, but develops gradually as our means of studying the natural world develops.

The methodological reflection ends with another example. Religion and faith are a subject of lasting debate in Hobbes studies.[25] A separate question, raised during Hobbes's lifetime and every now and then since, concerns his atheism.[26] My answer to this question runs as follows. In 17th century Europe and Britain political vocabulary and human life in general were essentially religious, and, consequently, religion was an integral part of Hobbes's thinking.[27] As Jesseph writes, 'Hobbes viewed religion as an inescapable part of the human condition which must be rigorously controlled by the sovereign'.[28]

The question whether Hobbes was an atheist or a Christian can be answered by a statement Hobbes himself gives in an early work: 'opinions [of Thucydides], being of a strain above the apprehension of the vulgar, procured him the estimation of an atheist; which name they bestowed upon all men that thought not as they did of their ridiculous religion', when in fact, as Hobbes argues, Thucydides was neither 'superstitious' nor 'an atheist'.[29] The same line of argument applies in the case of Hobbes. In the eyes of many of his contemporaries he was an atheist of the worst kind, but then again we need to take into account that they used the term in a different sense than we do. From their standpoint, Hobbes's call for the subordination of ecclesiastical power to the secular, his materialistic metaphysics, and his somewhat mundane conception of morality formed a major threat, which they expressed in the familiar normative language and in this higly qualified sense Hobbes was an atheist.

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[25] These should be distinguished from each other. My understanding is that to Hobbes, religion represents public, faith private relationship of human beings to God.

[26] In relation to Hobbes and religion, Malcolm (1982, 266-272) gives the list of thirteen different positions that have been proposed to characterise Hobbes's religious stance; these include pantheism. Useful discussions on the subject are by Curley (1992); Martinich (1992); and Jesseph (1999, Chapter 7 (especially 325-327) and 2002). Also Mintz's (1962) pioneering study is still useful.

[27] Compare to Kateb (1989, 368): 'Hobbes is no more Christian than he is an atheist. However, his world is Christian'.

[28] Jesseph 2002, 142.

[29] *Thucydides*, xv. The passage is a bit unclear. Hobbes seems to refer to the opinions of Anaxagoras, but because the subject in general is Thucydides, whom Hobbes considers the student of Anaxagoras, I find my attribution in square-brackets justified.

One more caveat needs to be made,. In his article 'Hobbes's Atheism', Jesseph provides a plausible line of argument which shows how the idea of God is problematic in the framework of Hobbes's materialistic ontology and concludes that 'there are strong grounds for seeing Hobbes's excursions into theology as exercises in irony'.[30] Even though I agree with Jesseph's philosophical argument, the conclusion he draws is suspect and I suggest that we should remain sceptical when it comes to Hobbes's personal religious conviction. The reason for this is simple, no indisputable evidence exists. All the historical evidence provided indicates that at best Hobbes was 'a closet atheist'.[31]

There are, then, convincing philosophical reasons to conclude that Hobbes's philosophy entails atheism and to claim that his views in matters of faith and devotion were unorthodox,[32] but not enough historical evidence to show Hobbes was an atheist. It takes both historical knowledge and philosophical dexterity to show that this dual account of Hobbes's atheism is a plausible approach, but it reflects the balance between restrictions and liberties that this study aims at.

A PORTRAIT OF HOBBES

Those who have studied Hobbes may have come across a detail: there are few widely circulated portraits of him. There seem to be two or three pictures that a scholar finds again and again on the covers of studies of his thought.[33] A similar observation applies to his philosophy.

Since the end of the 19th century there has been a growing interest in Hobbes's work, which has accelerated as we come closer to our own time. The amount of scholarship is huge. From this it does not follow that there are as many interpretations of Hobbes as there are interpreters. There are many disputes over specific issues, but there appears to be a consensus about what the central tenets of Hobbes's philosophy are. In what follows, I wish to offer some critical remarks on the standard readings. What is discussed below is however an outline, and the questions related to the standard picture of Hobbes's philosophy will be discussed in detail during the course of the thesis. These

[30] Jesseph 2002, 158.

[31] Jesseph 2002, 154 (the circumstantial socio-historical evidence for Hobbes's atheism is discussed on pages 152-156).

[32] For Hobbes's view of faith and devotion, see Glover 1965 and Johnston 1989.

[33] The reality is, as usual, more complex, and exceptions do exists. See, for instance, the cover of Tuck 1993. There would appear to be twelve portraits of Hobbes, of which many have variants. The most extensive study, and the one followed here, is Bredekamp 2003 (for different portraits see 215-233; note that Bredekamp lists four more portraits that are not pictured in the appendix). Hobbes himself writes: 'A portrait of him, painted from life when he was seventy, finely executed, is held in the private collection of King Charles the Second. Other portraits of him are extant. These were painted at various times, at the behest not least of his friends in England, but also at the behest of his friends in France' ('The Prose Life', in *Elements*, 252).

discussions form the second of the broad themes of the work, namely the diversity of Hobbes's philosophy.

Hobbes is a pleasantly systematic thinker. This is often taken to mean that he has a system of ideas;[34] that Hobbes, from the philosophical awakening of the 1630s onwards, developed a set of doctrines that dovetail smoothly. I believe this to be a mistake. Hobbes is a systematic thinker, but from this it does not follow that he had a system of ideas.[35] Instead, we have a set of principles that we are able to find in his extensive oeuvre and that are normally expressed by a list of isms, which includes materialism, mechanism, determinism, nominalism, and empiricism. Surely, these labels characterise Hobbes's philosophy, but they need to be explicated.

To begin with the most obvious, Hobbes was a materialist, but what kind of materialist?[36] In *Leviathan*, Hobbes expresses his materialism with the following words: 'The World, (I mean not the Earth onely, that denominates the Lovers of it *Worldly men*, but the *Universe*, that is, the whole masse of all things that are) is Corporeall, that is to say, Body'.[37] Consequently, materialism is a position that holds that reality is not immaterial, nor does it have any immaterial components. This excludes such entities as angels and immaterial spirits.

The problem with the material world is, however, that we do not have direct access to it. Hobbes solves this by constructing the notions of real and imaginary space. For example, in *Critique du 'De Mundo'*, he explains that we conceive space by imagining it in our mind, but from this it does not follow that this totality of bodies in motion will cease to exist when we stop to imagine it, merely that as an object of our capacity to understand reality it exists as an imaginary space.[38] This gives room for the conclusion that Hobbes's idea that reality is nothing but matter is an axiom . There is nothing alarming in this. As long as Hobbes is able to show that there is either some evidence for the axiom or that there is some evidence against the rival views. I will return to the details of the question in Chapter V, here it is suffice to point out the following. Because Hobbes thinks that the knowledge of the causes of natural bodies will always remain unsure, the latter option is more convincing. For instance, Hobbes's argument of the denial of incorporeal substances could be taken as evidence against a prominent rival, namely Aristotelian metaphysics. This is not however a very satisfactory conclusion because the same kind of reasoning could be used to defend, say, Aristotelian metaphysics, but the following qualification may make Hobbes's position more convincing.

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[34] See, for example, Brandt 1928, 347-348 and Watkins 1989.

[35] For a similar train of thoughts, see Oakeshott 1975, 16; Prokhovnik 1991, 214; and Malcolm 2002, 538.

[36] For some ideas, see Brandt 1928, 355-372 and Leijenhorst 2002, Chapter 4.

[37] *Leviathan* XLVI, 371.

[38] See *Anti-White* III. For a valuable discussion, see Leijenhorst 2002, Chapter 3.

A central tenet of Hobbes's philosophy, materialism, is then better read as the qualified claim which states that, in the light of the best available knowledge concerning the natural world (including the human mind) and within the limits of human mental capacities, the world is nothing but matter in motion and all phenomena should be considered in the light of this. A similar line of thought applies to the other central thesis, mechanism.[39]

Motion, which is to Hobbes local motion, is the principle which explains the basic functioning of our world; it is 'Hobbes's conceptual key to the understanding of all reality'.[40] In *Concerning Body*, he writes about motion as follows: 'But the causes of universal things (of those, at least, that have any cause) are manifest of themselves; or (as they say commonly) known to nature, so that they need no method at all; for they have all but one universal cause, which is motion'.[41]

In *Leviathan*, Hobbes articulates two general meanings motion has in his metaphysics. First, it is a universal truth, and in the following passage the Galileian origins of the principle of inertia can be seen: 'That when a thing lies still, unlesse somewhat else stirre it, it will lye still for ever, is a truth that no man doubts of. But that when a thing is in motion, it will eternally be in motion, unless somewhat else stay it, though the reason be the same, (namely, that nothing can change itselfe,) is not so easily assented to.'[42] Second, the principle of motion characterises life as a biological phenomenon:'[f]or … life is but a motion of Limbs'.[43] But again, it appears to be so that motion is a regulative metaphysical principle. The world seems to work according to the laws of motion, but it is perhaps impossible to demonstrate that these laws apply universally and absolutely.

The third salient feature of Hobbes's metaphysics is determinism. At its simplest, determinism is an account according to which everything in the world has its cause. The more specific claim has been that in Hobbes determinism means that there is a necessary cause for every change. In order to have a correct understanding of the context of Hobbes's determinism, a brief note on the connotations of the term 'cause' is needed.[44]

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[39] My discussion here owns a great deal to Leijenhorst's (2002, Chapter 5) study of Hobbes's mechanism.

[40] Gauthier 1969, 2. See also Raphael (1977, 22) and, for a critical view, see Brandt (1928, 371). For the background of Hobbes's mechanism, see also Rogow (1988, 105-106) and for the broader background and different theories of motion in 17th century philosophy, see Ariew & Gabbey (1998, 440-444) and Gabbey (1998). For Hobbes's arguments that there is only local motion, see Leijenhorst (2002, Chapter 5).

[41] *Concerning Body* I.6.5, 69. See also *Critique du 'De Mundo'* V, XIV, XXI, and XXVII (especially, article 8).

[42] *Leviathan* II, 4. Leijenhorst (2002, 173) calls this the principle of exteriority of motion.

[43] *Leviathan* 'Introduction', 1.

[44] My ideas here base on a distinction made which considers two types of explanation: causal and rational. For classical discussions, see Plato, *Phaedo* 96-99 and Aristotle, *Metaphysica* 1013a24-1014a25.

By causes, Hobbes means material, efficient causes like a stone hitting a glass and causing it to break, but to understand his determinism as a doctrine which gives everything a material, efficient cause and therefore does not give any place for reflection or choice is insufficient. Cause has another general meaning in his philosophy: to have a cause is to give a reason why something happens as it happens, it is not merely a material relationship between two bodies.When one is trying to explicate Hobbes's layered view of cause, passions and physical reactions related to them offer an example. Passions, as material phenomena, determine our reactions. When embarrassed, we blush, and this blushing is a result of the acceleration of bodily motion which causes heat, which is then apparent in our cheeks and ears. This is the first aspect of cause, but we may ask again: why do we blush? The very cause of blushing is not necessarily determined by physical factors, but can arise because we realise that we have broken a convention of social behaviour, for instance, burped at a banquet. Furthermore, when we understand the mechanism how passions arise in us, we become aware of their causes and, finally, are able to control our passions. This does not yet mean the denial of the idea that everything in the world has a cause, or even the more radical claim that everything in the world has a material, efficient cause. It may be that Hobbes is as reductionist as his text sometimes suggests, and that ultimately there is nothing but a matter in motion. What I have however tried to point out, and hope to explicate in the coming chapters is, first, that explaining the causal processes is itself beneficial and may help us to understand ourselves and the world, and, second, that perhaps Hobbes's conception of cause is more complicated than simply an account of material, efficient cause.

Nominalism is the fourth doctrine which is often associated with Hobbes. Of the epithets describing Hobbes's philosophy, it is also perhaps the most unproblematic and apt. Here the discussion of Hobbes's nominalism is limited and some further aspects will be offered in the chapter where Hobbes's notion of language is studied. Hobbes's nominalism has two central aspects. The first is the idea that the world consists of particular things and the second is the idea that only names are universal. In her article 'Mr Brown's note annotated', Krook characterised Hobbes's nominalism as follows:

> Hobbes is a nominalist; and a nominalist as uncompromisingly radical and consistent and audacious as any that has been known. And what that means in this case is that for Hobbes nothing in the world is 'given' but bare sense-particulars, wholly discrete, wholly unconnected— 'a universe of disconnected singulars'. Everything else is created by the mind of man; all distinction, all significance, all order, all intelligibility, are human artifacts, creations of the human mind.[45]

[45] Krook 1953, 226. Krook's quotation is Carré's definition of Ockham's world view in his *Phases of Thought in England*. As Doctor Aho pointed out to me, a more adequate characterisation of Ockham should include qualities, that is, a universe of disconnected singulars that have certain qualities.

Krook's statement bears a germ of truth in it. Hobbes indeed appears to depict the world as consisting of particular beings and that order is imposed on it by reason and above all by language.

The last epithet that needs to be mentioned is empiricism. McNeilly[46] has proposed that Hobbes's empiricism is a combination of psychological (i.e., the origin of conceptions is in experience) and logical (i.e., the analysis of language creates uniform and precise notions) empiricism. In addition to this, he continues, there is a methodological empiricism according to which science proceeds by collecting observational data and making generalisations. Of these the first two are of some further interest.

The first form of empiricism seems to be correct when applied to Hobbes. There are no conceptions in a person's mind, which are not produced by sense-experience.[47] This should not be understood in a naive fashion as a thesis that all our conceptions must have personal perceptual origin. For instance, as his account of history implies, Hobbes's concept of sensation allows such things as books to be the source of experience. Secondly, like materialism and mechanism, empiricism is a background principle; it is another plausible axiom which Hobbes takes as a starting point for his philosophical reflection. In principle, our conceptions are reducible to our sensations, but as Hobbes's analysis of the deviations of the mind shows, sometimes there is a cul-de-sac and the explanation of how a person came to hold a conception is pure fantasy. Contradiction in terms ('insignificant names') is another familiar example.[48] A person who holds, say, the conception of an incorporeal body or a round quadrangle, is not only expressing an obvious absurdity, but also, in the case of a round quadrangle, committing a category mistake by combining two incompatible sensations.

The second way to understand empiricism is more complicated. It is possible to agree with the idea that Hobbes's philosophy aims at the clarification of the use of words, but it is far-fetched to claim that this is an early form of logical empiricism. A cogent reason to abandon the idea that Hobbes was a logical empiricist is, however, his humanistic approach to the study of language. Hobbes's interest toward language is also that of a Renaissance man – philological, partly historical, classical, and, perhaps, best exemplified in his analysis of the Scriptural terms.

Nevertheless, and as already indicated, all five labels that have been discussed are appropriate ways to describe Hobbes's philosophy. I wish, however, to cast some doubt on the idea that these doctrines have always been correctly applied to Hobbes.

In general, my doubt concerns two ideas. The first is that though all the described doctrines seem to fit Hobbes's philosophy, it is another question whether they form a

[46] McNeilly 1968, 77-82.

[47] See, for example, *Leviathan* I.

[48] *Leviathan* V, 30.

system, and my objection here is that there is no system in Hobbes's philosophy. Throughout the thesis when discussing various aspects of Hobbes's philosophy, I will make the point that though the standard reading is not false, it fails to appreciate all the nuances of Hobbes's thinking. The second idea has been already introduced to some degree, and it has more to do with the specific doctrines. Hobbes is far too easily placed within various canons, which again has prevented us from seeing the richness of his philosophy. I argue that the idea of a system of philosophy in Hobbes gives a misleadingly smooth reading of his work and, if the assumption of a system is maintained, elements of his philosophy (which I found more proper way to describe what Hobbes was trying to do) appear in a strange light. To summarise, attempts to characterise Hobbes's philosophical ideas and practice in some general terms or to put them into a certain context, whether this be modernistic-Aristotelian or humanistic-rhetorical (to mention the two prevailing lines of interpretation), will leave something out of picture, and will not only fail to appreciate the richness of his thinking, but will also prevent his shortcomings from being acknowledged.

IMAGINATION AND DIVERSITY IN THE PHILOSOPHY OF HOBBES

Aside from diversity of Hobbes's thinking, the other broad theme of the thesis is imagination. Below I will try to explain why I believe that the concept of imagination could be a promising candidate to provide a certain thematic unity to Hobbes's thought, but before doing this, a note on the more general use of the term. In this work, the term 'imagination' will be used in two major sense. The first could be called 'internal' and this refers to the ways Hobbes uses the term in his works. Though imagination here may refer to various things, the meaning of the term is restricted in the sense that it is not used in other senses than those Hobbes gives to it. The second use could be called 'external'. This use refers to a broader conception of imagination and also has some points of contact with how the term is used today. The work in hand, then, seeks to reflect more broadly on what the term imagination could be taken to cover. During the course of my thesis I wish to show that the latter use of the term is also justified, but here it needs to be emphasised that the motive for using imagination as an umbrella notion comes from Hobbes's philosophy, where imagination and its many forms touch upon issues that may appear strange to the eye of a modern reader. An issue that this work finds particularly interesting is that imagination has something to do with knowledge.

Imagination plays a central role in many of the core areas of Hobbes's philosophy, but at the same time it is possible through the notion to analyse his ideas on poetry and his view of political life. Imagination is not only a coupling and organising notion, but also a notion that opens a new perspective on Hobbes's philosophy. In

particular, this seems to hold true in his theories of human nature and of knowledge. Imagination, moreover, is a historically enlightening concept because it helps one to understand some of Hobbes's background ideas in a way that creates a certain uniformity, and also because it shows how the idea of creativity changed from the beginning of the 17th century to the age of Romanticism. Aside from these, imagination is above all an explanatory concept, which helps us to understand a tension in Hobbes's philosophy. This tension is perhaps best summarised as follows: if we take Hobbes's empiricism in a strict and narrow sense, the problem is how to explain the rational process which corrects inadequate perception in terms of his empiristic psychology. In order to understand this tension, we need a preliminary account of different aspects of imagination in Hobbes's philosophy.

In *Leviathan*, Hobbes illustrates the peculiar ways of the human mind by the following train of thought:

> For in a Discourse of our present civill warre, what could seem more impertinent, than to ask (as one did) what was the value of a Roman Penny? Yet the Cohaerence to me was manifest enough. For the Thought of the warre, introduced the Thought of delivering up the King to his Enemies; The Thought of that, brought in the Thought of the delivering up of Christ; and that again the Thought of the 30 pence, which was the price of that treason: and thence easily followed that malicious question; and all this in a moment of time; for Thought is quick.[49]

The political connotation of the passage, Hobbes's use of the Judas allusion, is not extraordinary. Aside from being an image of treachery, the allusion was part and parcel of the discourse of discussing the deliverance of Charles I. Marchamont Needham (1620–1678), a known pamphleteer, wrote in the epitaph of James, the Duke of Hamilton:

> Rather than he his ends would miss
> Betrayed his Master with a kiss. [50]

Two other connotations, psychological and stylistic, come to mind. Seen from the first perspective, the passage is a kind of proto-associationism.[51] It is also easy to agree that the passage is one more apt example in the texture of *Leviathan*. All these connotations elucidate Hobbes's philosophical practice, but say little about the claim that the coherence of a train of thought is manifest.

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[49] *Leviathan*, III, 9. Hobbes discusses the execution of Charles I in many of his works. A particularly illustrative discussion is in *Dialogue*, 71-78.

[50] Needham 1649, 31. I am indebted to Dr. Clive Holmes (Lady Margaret Hall, Oxford) for bringing this quotation to my attention.

[51] See, for example, Peters 1967, 107-108; Robertson, 1993 [1886], 129; and above all Thorpe, 1940, 90-96.

One may ask, how is a comparison that combines contemporary politics and the history of Christianity compatible with Hobbes's mechanism and materialism, and, in particular, with his empiricism, according to which 'there is no conception in a mans mind, which hath not at first, totally, or by parts, been begotten upon the organs of Sense'?[52] The question does not only relate to one particular occasion, but highlights the tension which is created when Hobbes's materialistic and empiricist starting points meet his linguistic and logical philosophical method and which, I think, culminates in his analysis of imagination.

No independent study of Hobbes's notion of imagination is available, but the notion is part of the standard discussions of Hobbes's psychology.[53] The standard view says that sense is the central notion in Hobbes's psychology and that imagination, like all the other capacities of the mind, is a mode or a variant of sense. This is something that I wish to reconsider in the chapter that discusses Hobbes's theory of human nature.

The two specific areas where imagination has been studied in Hobbes are in his ideas on art and in his civil philosophy.[54] Sometimes these are linked and, for example, Skinner in his study of the nature of Hobbes's civil philosophy, writes that 'if we wish to understand Hobbes's changing beliefs about the value and use of *ornatus* [and consequently his mature account of civil philosophy], we need to begin by sketching his theory of imagination, a theory first outlined in chapter ten of *The Elements of Law* and definitively unfolded in the opening three chapters of *Leviathan*.'[55] Both of the mentioned readings bring out some aspects of Hobbes's notion of imagination. The reading that deals Hobbes's civil philosophy tells a great deal about Hobbes's way of engaging in civil philosophy and its intellectual context, but at the same time eclipses the fundamental level on which the developed use of imagination is based, whereas the interpretation that concentrates on the psychology of creative process and imagination's role in it misses the diversity and elegance of Hobbes's understanding of the basic processes of the mind.

In the previous section, two general objections to the prevailing understanding of Hobbes's philosophy were introduced. The more specific objections of this work can be explained through the synopsis of the work. After the historical introduction of Chapter

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[52] *Leviathan* I, 3. A similar example of the coherence of conceptions can be found in *Elements* IV.2, 31

[53] Studies of some interest include Thorpe 1940, 79-117; Peters 1967, Chapter 4; McNeilly 1968, 30-1; Reik 1977, 141-143; Sorell 1986, 82-84; Sepper 1988; Herbert 1989, 69-70; Gert, 1996, 157-174; Leijenhorst 2002, 89-97. For a general account of 17th-century theories of cognitive faculties which includes Hobbes, see Hatfield 1998.

[54] For the first, see Thorpe, 1940, especially Chapters I and III-V; Reik 1977; Cantalupo 1991; and Prokhovnik 1991. When mapping the broader historical development, Engell (1981, 112-17) discusses briefly also Hobbes's view. For the latter, see Wolin 2004 [1960], 214-256 and 1970, 4-5; Johnston, 1986; and Prokhovnik 1991. Caygill's (1990, 11-31) short and slightly cryptic discussion is also of some interest. The most complete work that studies both is Skinner 1996. Valuable, but unfortunately often overlooked, is Oakeshott's (1975, 150-154) 'Leviathan: *a myth*'.

[55] Skinner 1996, 363-364.

II, Chapter III will study how imagination, cognition, and motivation are intertwined, along with this it will make some critical remarks about how Hobbes's theory of sense has been understood. The aim here is not to refute the standard view, which says that sense is central in Hobbes's theory of human nature, but to argue that there are at least three levels in Hobbes's psychology and if these are not carefully distinguished, confusions will arise. In terms of imagination, the two main ideas in Chapter III are that imagination is essential in building up the coherence of thinking, and that it has a significant role in Hobbes's theory of motivation.

The subject of Chapter IV is Hobbes's conception of language. Imagination relates to language in two ways. The first is the notion of understanding, which Hobbes defines as a form of imagination that deals with 'words, or other voluntary signs'.[56] The second way that imagination is relevant also has a connection with Hobbes's philosophy of mind. As already mentioned, imagination provides coherence to our thinking, but through understanding it also explicates our thinking. The diversity of Hobbes's philosophy is not only present in the two accounts of language, but is already manifest in his theory of signs. The chapter ends with a reflection that defends a less naturalistic reading of Hobbes's theory of human nature and with some remarks of how Hobbes's empiricism should be understood.

Chapter V, in which I wish to offer some fresh findings, concentrates on the question of knowledge. The historical claim of the chapter is that in the 1650s, Hobbes started to formulate a new approach to knowledge. The approach was motivated by *Leviathan*, but better articulated in some post-*Leviathan* works. In order to understand this new theory of knowledge, a re-reading of his theory of causality is needed. Secondly, the emphasis will be on genuine sciences, that is, on geometry and civil philosophy, though some aspects of natural philosophy will also be discussed. In terms of Hobbes scholarship, my aim is again not to abandon what has been said about Hobbes's theory of knowledge, but to revise and complete what we already know – though I will object to some of the recent readings of Hobbes on this question, in particular the argument which claims that Hobbes's account of knowledge was influenced by the sceptical challenge to Early Modern philosophy. Aside from formulating Hobbes's idea of genuine demonstrative science, the role of imagination as a knowledge-productive or even knowledge-creative capacity as well as forms of pre- and semi-scientific thinking will be studied. The chapter ends with something I call Hobbes's 'epistemic conservatism' and by which I refer to the idea that the justification of knowledge and making it sure, not the discovering of knowledge, are two central aims in his theory of knowledge. That is to say, Hobbes's account of knowledge is conservative in the sense that our intuitions how things are in world is usually correct, and it is only the explanations and theories we give to different phenomena where faults occur. A well-

[56] *Leviathan* II, 8.

known example is the dispute between Aristotelian and Galilean physics on the causes of free fall.

The background of the Chapter VI are readings of Hobbes that emphasise the role of rhetoric in his philosophy. Literary style and its relation to Hobbes's philosophical thinking have received increased attention from Hobbes scholars. Chapter starts with an analysis of how Hobbes understood the notion of art (a notion that has not been discussed much in Hobbes scholarship), and extends to Hobbes's theory of poetry and his understanding of the function and the role of history. The major topic is however Hobbes's conception of style. Recently arguments have been put forward that Hobbes's ideas on poetry are more or less directly related to his changing conception of civil philosophy. Some authors, like Condren, claim that Hobbes is fully rhetorical, whereas some, like Skinner, seek to explain the identifiable change in his conception of civil philosophy in *Leviathan* using a more cogent historical argument, which links Hobbes to the tradition of *ars rhetorica*.[57] Perhaps the greatest tension between this work and the preceding studies of Hobbes arises from this question. My claim is that though Hobbes's ideas of good literary style do have a point of contact with his philosophy, his theory of poetry should be considered an independent part of his thinking with its own rules of composition and own aims. A similar line of thought applies to history, the other art Hobbes discusses extensively in his works. As poetry, so history and its subspecies, like natural and ecclesiastical history have their independent disciplinary and stylistic devices, which should not be confused with those of philosophy. Scientific, or philosophical imagination is separate from the poetic and the historical imagination. From this it does not follow, however, that style is not important. Quite the opposite, style is of extreme importance, but the style adopted in poetry is very different from that adopted in philosophy, which both differ from some other traditional genres, like history. Concerning imagination, I argue that imagination is the basis of all harmonious style, whether this be in poetry, rhetoric, history, or philosophy, but, first, that the adoption of literary strategies are according to discipline, and, second, that though arts like poetry, history, and rhetoric can be used to educate, they remain subordinate to philosophy. This idea takes us to the last topic of the thesis.

Chapter VII extends the discussion on style into the complicated field of method and argumentation. There are many answers to the question how we should understand Hobbes's way of philosophising. In general, most of these use the concept of method to analyse the question, some arguing that there was one method in Hobbes, whereas others distinguish between two methods, one for natural and one for civil philosophy. Again, the aim of this work is not to say that there is something acutely mistaken in these readings. It will instead seek to show, first, through a historical survey how the notion of method has been understood in the tradition of philosophy, and, second, using Hobbes's

[57] Condren 1991 and Skinner 1996 and 2002, II, Chapter 4 [1991].

own discussions of logic and art of reasoning, and adding to this what has been said about different arts and of knowledge in the two previous chapters, it will suggest that method is not perhaps the aptest way to conceptualise Hobbes's philosophical practice, which itself can be considered a manifestation of imagination in the aforesaid broad sense of the term.

The conclusion, or as it might be better to call it, epilogue, brings together the various themes and dimensions that have been discussed throughout the work, with emphasis still being on the conception of imagination. Finally, the epilogue will suggest what could be Hobbes's role in the modern history of imagination.

II A HISTORY OF IMAGINATION

A history of imagination is justified for three reasons. First, it clarifies the similarities and the differences one is able to find between theories that preceded Hobbes. Second, the chapter in hand is not only an introduction to Hobbes's theory or conception of imagination, but more broadly an introduction to the themes of the thesis. Third, a history is needed to set up the broader historical suggestion that will be discussed in the epilogue of the thesis, namely that there may be reason to believe that the modern notion of creative imagination started to develop, not in the turn of the 18th and 19th centuries reflections on art, but in scientific and epistemological discussions in the 17th century.[58]

The historical survey offered here is not an all-embracing one.[59] Instead, in what follows I will concentrate on some prominent theories of imagination that can be taken to have an influence on Hobbes or at least to have a point of contact with his conception

[58] The emphasis here is in the word 'modern', by which I explicitly refer to the distinction made by Immanuel Kant in his later writings (see the conclusion of this chapter). Of course the expressions 'productive' or 'creative' are attached to the notion of imagination before Hobbes or Kant. O'Daly (1987, 106), for example, writes in his study of Augustine's psychology: 'Imagination can be merely *reproductive* of the images in the memory, but Augustine can also talk of the *creative* exercise of the imagination', but here creativity refers to the compounding function of imagination, and as O'Daly (1987, 108) later remarks, to Augustine even the most fantastical imaginations consist of various reproductive imaginations and 'cannot plausibly be held to occur without in some way originating in images of perceived objects'.

[59] In fact, there is no all-embracing and authoritative history of imagination or, even an inclusive philosophical study of the imagination in 17th- and 18th-centuries philosophy – naturally numerous smaller-scale works exist, and some of these are indicated in my footnotes. A work that comes closest to an authoritative history is Bundy's pioneering work *The Theory of Imagination in Classical and Medieval Thought* (1927), but as the title indicates, it ends before the time of Hobbes and the sequel Bundy promises in the preface never appeared. It is also somewhat dated. Two other works that study imagination in classical thought are Watson (1988) and Barnouw (2002). Recently a collection of essays has been published, which discusses some aspects of the Late Medieval and Early Modern notions of imagination, but as the editors write: 'Given the protean character of imagination it goes without saying that we do not aim at a comprehensive account of its history, even of that part of history which this volume covers' (Nauta and Pätzold 2004, xi). Concerning the 17th and 18th centuries, the works I have consulted are Engell (1981) and White (1990). White discusses few Early Modern thinkers (Hobbes, Descartes, and Locke) as well as some prominent minds of the 18th century (Berkeley, Hume, and Kant), but his emphasis is on psychology and 20th century conceptions of imagination. Engell's work touches on the main currents in 17th and 18th century philosophy, but it does this only insofar as it is taken to be relevant to the later development, especially to the theory of imagination in Romanticism. Other general studies that I have encountered consider the conception from various points of view. These include Cocking's (1991) posthumously published study, which concentrates on literature, and Kearney's synthetising work (1988 and 1991), which is an attempt to analyse imagination as a constituent of Western culture. Lastly, I have benefited from Thorpe's (1940, Chapter II) discussion, which is, however, limited to the aesthetic-psychological aspects of the history of imagination and which builds largely on the work of Bundy. Despite the "shortcomings" I have found all the works helpful while writing this chapter. For purely encyclopaedic accounts that I have benefited from, see *Historisches Wörterbuch der Philosophie*, Vol. 4, 218-219 (imagination) and Vol. 7, 516-535 (phantasia).

of imagination. The order is mainly chronological, but there are some complementary distinctions, and though I do not follow them completely, they help to form a picture of how the conception of imagination has been understood in different intellectual currents and periods.

Chronologically I will follow the conventional path, which starts from Plato and continues with Aristotle and the Stoics.[60] After touching briefly on the Judaeo-Christian concept of imagination and imagination in the classical *ars rhetorica*, I will narrow the discussion to Platonist and Aristotelian theories of imagination (that is, how these two thinkers' ideas on imagination were treated in the later intellectual discussions). The body of the chapter ends with some aspectsof the Renaissance conception of imagination.

Thematically one is able to draw a distinction between philosophical and literary conceptions of imagination.[61] By the philosophical conception of imagination I refer mainly to the role of imagination in theories of human mind and knowledge, and by the literary conception of imagination I refer to a classical idea of literature, which referred mainly to poetry, but included not only the genres of literature, like tragedy, but more broadly other forms of (literary) expression, such as rhetoric and history. This division, it should be added, is heuristic. The two conceptions are intertwined, but, as for instance Hobbes's theory of imagination shows, it is misleading either to detach them, or to consider them as conceptual Siamese twins. To be precise, the way Hobbes understands imagination in his theory of human nature has consequences both for how he understands knowledge and how he understands poetry, but from this it does not necessarily follow that they have something in common.

The second division is between natural and artificial imagination, and below I will introduce, in an appropriate context, one more distinction: passive and active imagination. The distinction between natural and artificial imagination is more systematic than historical, but it is helpful, for it reflects the two central meanings imagination has had in Western thought and can be applied to psychology, to religion, and to knowledge. In general, the difference can be expressed as follows. Imagination and images are taken to be natural to our thinking (to have a conception is often taken to be equivalent to having an imagination, or what is more, a sensory image of something), but then again, imagination can bring into existence things that are unnatural, that is, fall beyond experience. Here a salient dimension of imagination enters the picture, namely that

[60] For the Epicurean view, see Watson 1988, 38-44 and Striker 1996, Chapter 3. For the role of the Sceptics, see Barnouw 2002, Chapter 5, part I.

[61] For a similar distinction, see Nauta and Pätzold 2004. For a view how these were historically separated, see Watson 1988, Chapter 4 and Watson 1996. Watson emphasises the role of Philostratus the Elder (born c. 190 AD) and his *Eikones* ('Pictures'), a work where some sixty paintings are discussed.

imagination and language are taken to have something in common.[62] The connection is not universal, but it is substantial. The linkage between imagination and language can have various forms. It can mean, as in Hobbes's case, that imagination is the basis of language, or, more customarily, that imagination is needed in literary work. An insightful summary of natural and artificial imagination and their possible connection is given by Italo Calvino (1923-1985). In the fourth of his Norton lectures, entitled 'Visibility', Calvino writes:

> We may distinguish between two types of imaginative process: the one that starts with the word and arrives at the visual image, and the one that starts with the visual image and arrives at its verbal expression. The first process is the one that normally occurs when we read.[63]

The first imaginative process Calvino is describing in the passage is what I have called the artificial imagination, whereas the second, the one that starts from the visual image, corresponds with the natural imagination. In addition, Calvino's analysis introduces two themes. The first is the distinction between two basic ways in which imagination can be taken to work in Hobbes's thought. The second is a complex history, through which I hope to show that Calvino's analysis is especially apt in the case of Hobbes. The second forms the substance of the following pages, but the first can be briefly demonstrated by a topic that has fascinated Hobbesians: the metaphorical layers of *Leviathan*.[64]

Using Calvino's distinction, *Leviathan* consists of two imaginative processes. The first 'starts with the visual image', which is the the known image in the title-page 'and arrives at its verbal expression', which refers to the verbal similitude of the 'Introduction' as well as the philosophical theory that takes some four hundred pages to explain. The second imaginative process 'starts with the word (Leviathan and *Leviathan*) and 'arrives at the visual image' (the image of the title page). Part of the enigma of *Leviathan* is the complexity of the processes and their interaction. A set of rather revolutionary theoretical ideas is captured in a single image, which again reflects the complexity of these ideas. Furthermore, when to this is added the intermediating layer of the verbal simile of 'Introduction', the intellectually titillating reaction to the work opens up on a general level.[65] To understand some of the complexity and elegance of *Leviathan*

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[62] This is to claim that natural language is not a plausible idea, if by this we refer to the idea that we are born with a capacity to use language. We do have a disposition to communicate, but language is always something acquired, learned and in this sense artificial. I will return to this question and the way Hobbes treats it in Chapter IV.

[63] Calvino 1988, 83.

[64] For an extensive account, see Skinner 1996, 381-390 and sources there.

[65] Here I agree with Prokhovnik (1991, 142-147 and 217-219) but not with all her conclusions, e.g, that '[w]ithout the allegory the work may still be political thought of some kind, but it would not be political philosophy' (*op.cit.* 218). The role of comparisons in Hobbes's philosophical thinking is discussed in more detail in Chapters VI and VII.

and Hobbes's theory of imagination, one should start from an understanding of its historical origins.

CLASSICAL ELEMENTS OF IMAGINATION

A philosophical account of imagination does not exists before Plato, but different conceptions of it do.[66] In ancient Greek there were two terms (*eikasia* and *phantasia*) and many derivatives of these that referred to what was later to be understood as imagination and imaginations. The first term *eikasia* was used before Plato, but otherwise the use of the term was marginal.[67] However some related terms, such as *eikôn* ('image', 'copy'), *eidôlon* ('image, 'idol') and *eidos* ('form', 'idea') do reveal an aspect of imagination. This family of terms refers to the idea that imagination is comparable to sensations and something that bears a resemblance, not only or even primarily to the objects in the outside world, but to our sense impressions of them. The cardinal term was *phantasia* ('appearance') and the corresponding verb *to phainesthai* ('to appear', 'to come to light').

Phantasia elicits two basic types of imagination: passive and active. As an appearance of an external object, an imagination is passive, something that follows from perception, or a replica of sensation, but as a mental state, an imagination refers to a conception of mind that has already been processed in one way or another, or as Bundy puts it, 'a mental state as opposed to a reality'.[68] Passivity and activity can also be stated as capacities.

As a passive capacity imagination bears a close resemblance to memory, but is, first, primary to memory, and, second, not as limited as memory. When we sense something, the organs of sense receive an experience of something. After the external sensation, the object of sensation is perceived internally. This internal sensation is the function of imagination as a passive capacity. Only after the internal sensation is the experience of something stored in the mind by the memory. As an active capacity, imagination differs from memory. Though both capacities evoke something from the mind, memory is (at its best) evoked like the original sensation was and is unable to change the original sensation, whereas imagination is not limited by the original sensation and is able to change it.[69]

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[66] See Bundy 1927, Chapter I; Watson 1988, 1; White 1990, 3-6; Kearney 1991, 79-87; and Schofield 1992, note 11.

[67] For instance, Plato uses the term when discussing the line-analogy in the fifth book of *The Republic*.

[68] Bundy 1927, 12.

[69] A memory can of course be distorted, but a distorted memory does not change the original sensation, only reproduce it imperfectly.

In the classical thought *phantasia*, from systematic point of view, had the following features. It was more blurred or muzzy than sense perception, which was considered to be veridical. As a combination of sensation and belief, *phantasia* was untrue also in another sense, that is, in comparison to ideas which are the proper constituents of reality.[70] Third, the objects of *phantasia* were particular sense objects like horse, man, or snub nose, whereas the objects of discursive reason were universal. Fourth, a peculiar feature of *phantasia* was that it was able to represent sense objects even when objects were no longer present. With these initial remarks it is possible to enter into more detailed discussions about how imagination has been understood in the tradition of Western philosophy.

GREEK CONCEPTIONS OF IMAGINATION

Though Aristotle is often hailed as the discoverer of imagination[71], it was Plato who laid the foundation for later development.[72] Plato discusses extensively of aspects and forms of imagination and in this way his reflections constitute the history of the concept. Naturally he considers it from a psychological point of view, but his work contains also aesthetic and epistemic reflections, of which the latter has a point of contact with the last dimension, religious or mantic[73] imagination.

Plato did not form a theory of imagination, but he seems to have a consistent view of it: imagination is not a part of the intellectual (and the moral) perfection of human beings. Plato's negative view of imagination is partly based on the association of *phantasia* and *doxa* (opinion), or as he defines the term in *The Sophist* 'a blend of perception and judgement',[74] partly on the idea that imaginations are the shadows of shadows (that is, replicas of impressions of material objects, which are, again, inferior to ideas).[75] If the material world is already in a state of constant change and sensations are unable to offer any firm basis of knowledge, then imaginations are a double harm for they are also relative to a person, and his or her individual conceptions of an object. Consequently, as a mental capacity imagination is mimetic, distorting, subjective, and includes a possibility of error because opinions related to a *phantasia* interpret the

[70] Of ideas, see *The Republic* 509e-510a and *Phaedo* 96a-101e

[71] See, for example, Bundy 1927, 19 and White 1990.

[72] For Plato's view, see Bundy 1927, Chapter 2 and Barnouw 2002, Chapter 1. See also *Historisches Wörterbuch der Philosophie*, Vol. 7, 516-517.

[73] From the Greek word *mantikos*, which means prophetic and oracular (see, for example, Plato's *Phaedrus* 265b).

[74] *The Sophist* 264b. This is little misleading, for *doxa* can be verbal or non-verbal, and only when the latter is it called *phantasia* by Plato. See *The Sophist* 264a and Watson 1988, 2.

[75] What is said here is based mainly on *The Republic* 509d-510a, 511d-e, and 603a. See also Bundy (1927, 23-24) and Sorabji (2004, I, 61).

thought of which the *phantasia* is composed. For example, the perception that someone is approaching moulds into the *phantasia* that the person approaching is Socrates.[76]

In *The Republic*, Plato equates the visible world with that of 'images', by which he means here 'first, shadows, and then reflections in water and on surfaces of dense, smooth, and bright texture, and everything of that kind'.[77] This seems to confirm the general view of Plato introduced above, but the characterisation applies only to the material world. The line analogy suggests that there is another stage of reality to which another kind of imagination corresponds, 'an imagination of ideas'.[78] Plato uses geometry to explain the difference between the two. Geometricians may draw different figures, which are, firstly, material images, but secondly devices of science, which can support opinion, not knowledge. The proper objects of geometricians, however, are dianoetic images, that is, 'images [...] of those realities which can be seen only by the mind'.[79] Plato then seems accept the possibility that imagination plays a role in intellectual life. This tentative conclusion finds two further responses in his works: negative and positive.

The negative view is Plato's theory of art.[80] Though there is (with dianoetic images) a corresponding possibility of higher art that deals with ideas, ultimately Plato rejects this. The reason is theological: God is the only agent that can create in the highest sense, that is, create ideas. Artists are able to make only appearances and their work is mere imitation. In other words, works of art bear the character of likeness in them, for example, a sculpture is alike to a human body, which again is material and inferior to the rational soul. The difference between divine and artistic creation is that the latter is a trick, a bluff to mislead people.[81] In other words, the reason for the rejection of the possibility that art could express something higher is familiar: it cannot because, first, it deals with changing, material things, and, second, it is based on a subjective view, the appearance (*phantasia*) of an individual. Towards the end of *The Republic*, Plato fuses the psychological, epistemic, and aesthetic elements of his analysis of imagination:

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[76] *Theaetetus* 191b. The error, technically speaking, occurs because we wrongly combine our past ideas with the present sensation.

[77] *The Republic* 510a.

[78] Bundy 1927, 25. Bundy's characterisation is not the aptest possible. What Plato seems to say is that certain objects of mathematics, say, a triangle are particular but our knowledge of them is based on the assumption that demonstrations considering this particular triangle apply to other triangles as well. For an insightful discussion, albeit relating to Aristotle, see Lear 1982.

[79] *The Republic* 510e.

[80] An explanatory note is needed here. Plato's conception of art is undifferentiated. By art Plato refers not only to plastic arts or what today is considered art, that is, music, literature, and so on, but his conception of art has a special relation to the art of speaking. His critique is, then, partly the critique of art as imitation of the shadows of the higher reality, and partly the critique of sophistry as opposed to dialectics, that is, philosophy.

[81] *The Republic* 598a-c

> And the same things appear bent and straight to those who view them in water and out, or concave and convex, owing to similar errors of vision about colours, and there is obviously every confusion of this sort in our souls. And so scene painting in its exploitation of this weakness of our nature falls nothing short of witchcraft, and so do jugglery and many other such contrivances.[82]

This concludes Plato's critique. *Phantasia* is not only material and subjective, but the forms of human thinking that are based on it are misleading and many of its craftsmen, e.g., dramatists and orators, are deceivers.[83]

Aside from this negative reaction, Plato developed another line of thought, which was inspired by religion. In *The Sophist*, Plato distinguishes between two kinds of art (creative and acquisitive) and between two kinds of creation (human and divine). Divine creation creates the universe, real things, but also phantasms. In the latter, a number of ideas meet. Psychologically speaking phantasms sent by a divine being appear to human beings in various ways, for instance, in reflections and in dreams,[84] but in Plato this does not lead only to a pondering of the possibility of poetic inspiration[85], but above all to a doctrine of divine inspiration, which forms the last aspect of Plato's account of imagination, namely mantic imagination.[86]

Plato's stark distinction between material and immaterial planes of reality and his implicit location of imagination in the corporeal part of the soul seems to exclude any account of visions or similar phenomena. This is not, however, the case. In *Timaeus*, he puts forward an account of corporeal inspiration.[87] According to Plato, the liver is the organ which mirrors the divine images. Though at times Plato seems to suggest that prophecy, inspiration, and visioning are able to give an immediate knowledge of higher reality in the form of images, he regards the idea as ultimately doubtful. Immediately after describing the physiology of divination, he writes that:

> [H]e who would understand what he remembers to have been said, whether in a dream or when he was awake, by prophetic and inspired nature, or would determine by reason the meaning of the apparitions which he has seen, and what indications they afford to this man or that, of past, present, or future good and evil, must first recover his wits. But, while he continues demented, he cannot judge of the visions which he sees or the words which he utters; the ancient saying is

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[82] *The Republic* 602c-d. Compare this to what Plato says of sensation and perception in *Theaetetus* 152a-c and 161d-e. The primus motor for the critique is the Protagorean doctrine of *homo mensura*. See also Watson 1988, 2-6.

[83] The last dimension is discussed extensively in *Sophist* 260-268. See also Bundy 1927, 33-41. For a more nuanced view that also comments on Bundy, see Cocking 1991, 1-17.

[84] *The Sophist* 260b-c.

[85] See above all *Phaedrus* 265, where Plato distinguishes between four kinds of divine inspiration: that of a prophet, of a mystic, of a poet, and of a lover.

[86] For this, see above all Watson 1988, 11-13.

[87] *Timaeus* 71.

> very true—that 'only a man who has his wits can act or judge about himself and his own affairs.' [88]

Bliss must at least subside, before any intellectual activity can take a place. Therefore it remains safe to say that Plato maintained his intellectualism and a reserved attitude towards imagination, in particular towards aesthetic imagination. Secondly, as his theory of the soul does not distinguish systematically between different faculties of *psuchê*, there is no descriptive psychological theory of imagination.[89] From all this it does not follow that Plato is of secondary importance in the history of imagination and the following vignette by Long indicates Plato's profundity:

> Plato uses *phantasia* to pick out the different 'appearance' or 'perception' that one and the same entity may generate in a pair of observers. [...] *Phantasiai* are necessarily individual experiences, appearances *to individuals*. [...] The point is simply that any post-Platonic philosopher who wished to refer to individual experience of any kind – the way things appear to the individual subject who experiences them – had *phantasia* available as the appropriate term.[90]

Therefore, aside from demarcating the three principal forms of imagination (psychological, aesthetic, and mantic), Plato gave a timeless characterisation of this 'Reason in her most exalted mood'.[91] The first of the post-Platonic philosophers to develop this account of individual experience was Aristotle.

Aristotle's discussion of imagination is mainly in *De Anima*, though he also examines it in other works[92], and he is the first to provide a theory of imagination. On the basis of pure textual analysis, Aristotle's theory of imagination is psychological and it may appear striking that in his *De Rhetorica* and *De Poetica* he hardly mentions the term *phantasia*.[93] This, of course, does not mean that his views of rhetoric and poetry were not of significant influence for the discussion at hand. I will return to the topic when discussing imagination in classical oratory. Here it is sufficient to say that Aristotle was

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[88] *Timaeus* 71e-72a.

[89] This is not to claim that Plato does not speak of the major mental capacities of sensation, memory, and so on, only that it is rather hard to find a single, taxonomic treatment of them in his works.

[90] Long 1991, 104.

[91] This is Wordsworth's definition of imagination. See his *The Prelude*, Book XIV (Conclusion), line 191.

[92] These include *De Memoria et Reminiscentia, De Insomniis, De Motu Animalium,* and *Metaphysica*. For a general discussion, see Bundy 1927, Chapter III; Cocking 1991, Chapter I, White 1990, Chapter I; and Watson 1988, Chapter 2. For more detailed reflections, see Lycos 1964; Nussbaum 1978; Frede 1992; Schofield 1992;and Barnouw 2002, Chapter 2.

[93] Bundy (1927, 63, 65), who considers Aristotle's decision to be deliberate, refers to two occasions in *De Poetica* (1448a6 and 1460b9). Cf. Cocking 1991, 20-21. O'Gorman (2005, 18) says that '*phantasia* appears only nine times in the *Rhetoric*'.

not as hostile as Plato toward sub-celestial art, but took a pragmatic point of view. Art was imitation or mimetic activity and a skill (*technê*), and best treated as such.[94] His treatises of poetry and rhetoric are more like manuals than conscious articulations of a theory of art. In a similar vein, it can be noted that Aristotle was more tolerant when it comes to the relationship between imagination and knowledge. When Plato, though evaluating a possibility of this, ultimately thought that imagination does not play a role in the acquisition of knowledge, Aristotle arrived at an opposite result: imagination is necessary for having knowledge.

To Aristotle imagination is a particular kind of motion that is prompted by sensation and has two central functions: it offers the raw data for thinking and initiates action. It thus participates in the activity of both theoretical and practical reason as a capacity which produces appearances. As a state of mind, imagination is not a (mental) image, but any kind of appearance (*phantasma*) that results from sense perception, say, an echo or the taste of olive oil. More precisely, appearance is something that represents or stands for an object when it is no longer present or is somehow indirectly present.[95] Aristotle distinguishes between three kinds of *phantasiai*, which correspond to his tripartite division of perception. There is the fantasy of sensory qualities, say, 'white' or 'this is white', the fantasy of what this something is, for example, 'this white thing is a horse', and the fantasy of attributes common to different senses, e.g. magnitude.[96] Of these, the first is usually true when the other two can be false or erroneous. In addition, appearances are the basis of more complex mental constructions.[97] These constructions correspond to what later philosophical tradition refers to as complex or compounded ideas, say, a centaur.

As a capacity, 'imagination [*phantasia*] is different from either perceiving [*aísthesis*] or discursive thinking [*nous*], though it is not found without sensation, or judgement without it'[98]. As a passive capacity, imagination conveys within the mind something that is not necessarily present to a perceiver anymore or is present in an indirect way.[99] Consequently, acquisition of knowledge, though related to sensation and imagination, is ultimately an activity of the intellectual soul that abstracts essences of things from imaginations that are caused by sensations. Nevertheless, it is important to

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[94] For the mimetic conception of art, see *De Poetica* 1449b24-28.

[95] *De Anima* 425b25 and 428a15-16.

[96] *De Anima* 428b15-25 and 429a4-5. Cf. Bundy 1927, 69; Cocking 1991, 19-20; and White 1990, 11-12.

[97] *De Anima* 431b2 and 431b29.

[98] *De Anima* 427b14-17; 432a6-9 and 431a15-17. Cf. *De Memoria et Reminiscentia* 449b31-450a14 and *De Motu Animalium* 702a19-20. Frede's discussion (1992) clarifies some aspects of this troublesome matter.

[99] *De Anima* 428a1-2 and 429a2-3. Cf. 429b5-8.

understand that *nous* thinks in images.[100] Finally, Aristotle uses imagination to bring together a set of mental phenomena, which Schofield has called 'non-paradigmatic sensory experiences'.[101] These include dream, memory, fantasy, after image, hallucination, ghost image, reflection, and similar. Aristotle's two examples illustrate the perplexing character of imagination. In *De Anima*, he writes: 'But what we imagine is sometimes false though our contemporaneous judgement about it is true: e.g. we imagine the sun to be a foot in diameter though we are convinced that it is larger than the inhabited part of the earth'.[102] The second example is more constructive. In *De Memoria*, Aristotle seeks to demonstrate his basic tenet that thinking is not possible without a *phantasma*, by referring to the way problems are solved in geometry.[103] We can draw a figure, say, a triangle, but it is not the physical qualities which we are mainly interested in, but instead, we focus on the properties (say, the number of sides and angles) of a figure that remain the same no matter how big or small the picture is. The point, as Watson puts it, is that 'we still have to use *a* physical model at any given time.'[104] The lesson of the first example is that there is a distinction between appearance and judgement, whereas the second can be taken as a more sober account of what was called dianoetic images.

As mentioned earlier, it is in Aristotle's theory where the distinction between passive and active imagination makes its first appearance, to be exact, it is in Book III, Chapter XI of *De Anima*:

> To sum up, then, and repeat what I have said, inasmuch as an animal is capable of appetite it is capable of self-movement; it is not capable of appetite without possessing imagination; and all imagination is either calculative or sensitive. In the latter all animals partake.[105]

When operating in the lower part of the soul, imagination is passive and bears a close resemblance to the working of memory,[106] but in the higher part of the soul it acts as an active principle and as something distinct from the mnemonic or mediating functions of the mind. From this not too far-reaching conclusion can be made. What Aristotle suggests is that imagination has some cognitive functions, like that of synthetising the

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[100] *De Anima* 431b2. Among Aristotle scholarship this is of course debatable, but the question need not be addressed here. For one account, see Schofield 1992, note 20.

[101] Schofield 1992, 252 and note 20 there.

[102] *De Anima* 428b2-5. Used again in *De Insomniis* 460b18-20.

[103] *De Memoria et Reminiscentia* 449b30-450a13.

[104] Watson 1988, 29.

[105] *De Anima* 433b27-30.

[106] Imagination is, however, primary in relation to memory. Though Aristotle does not fully reject that there could be 'intellectual memories', that is, memories which do not base on sense experience', he says that these kind of memories are incidental. See *De Memoria et Reminiscentia* 450a.

experience, but this kind of capacity to make comparisons is relatively modest.[107] He is even more resolute (and in accordance with Plato), when discussing the religious dimension of imagination.

Prima facie, Aristotle seems to dismiss the discussion of mantic imagination. In *De Anima*, there are hardly any references to the realm of divine, and the theme only appears in the short treatise that closes the psychological part of *Parva Naturalia*, that is, in *De Divinatione per Somnum*. Even here, Aristotle's treatment is reserved. He carefully avoids giving an impression that some sort of supernatural prophecy is a significant part of mental life. Though he admits that dreams 'have a mysterious aspect', this is only because 'Nature [their cause] is mysterious, though not divine'.[108] Moreover, Aristotle is positive that gods do not send any divine prophecies or visions, but that these are man-made. In brief, phenomena like foresight and vision happen because violent movements of the soul are not harnessed by critical self-reflection.[109]

Though Aristotle was the first to give a systematic approach to *phantasia*, it was the Stoics who brought the conception to the centre of philosophy.[110] Some general features of Stoic psychology are worth mentioning before introducing their account of *phantasia*. The Stoics treated sensation as one of the modes of representation. For them it did not have any privileged status in relation to other modes of the mind, say, memories. The Stoics also held a doctrine of the primacy of self-awareness according to which a sentient being is always aware of itself, or in other words, has a representation of itself before it has any other representations. For instance, a worm is aware of itself before becoming aware that it is on a fishhook. What is relevant to add is that the Stoics had a unified concept of mind. There were no lower or higher parts of the soul, but instead the soul is a single unit led by *hêgemonikon* (the commanding faculty or, sometimes, intellect). Lastly, as Aristotle, the Stoics understand the functioning of soul in terms of motion, which consists of two components, *phantasia* and *hormê*, which correspond (respectively) with cognition and motivation.

The first advantage of the Stoic analyses of *phantasia* is the emphasis on the conformity of our experiences: 'my sensing something white, my awareness that what is hurting is my leg, my recollection of someone's birthday, my current thoughts of Socrates, and my reflection on the square root of 2 are all alike in being representations, appearances of something to me'.[111] From this it does not, however, follow that all our

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[107] For a detailed discussion, see Frede 1992.

[108] *De Divinatione per somnum* 463b14-15.

[109] *De Divinatione per somnum* 464a25-26.

[110] For Stoic theory, see Bundy 1927, 87-96; Cocking 1991, 22-24; Watson 1988, 44-58; Long 1991; and Barnouw 2002. I follow here Long, which is not only a study of the concept of *phantasia* in the Stoics, but offers a valuable comparison between them and Aristotle (see pages 104-106). For a thorough study of the Stoic theory of *phantasia*, consult however Barnouw (2002).

[111] Long 1991, 107-108.

representations are of equal value, for some representations (*phantasiai*) can naturally be false. Secondly, though the Stoics did not give any clear view of how we can make qualitative distinctions between different representations, say, between the representations of white, painful, and ecstatic, they made some distinctions about representations. A central distinction concerns cataleptic and non-cataleptic fantasies. The first are impressions of real objects that we have assented (*sunkatathesis*) to be in correspondence with our mental content of them, and the latter are the ones we have dissented.[112]

The second main interest of the Stoic theory of imagination is the linking of language, thinking, and *phantasia*. A genuine cogitation is the cogitation of a sane, rational adult, and requires language. Rational understanding of things requires conceptions, and rational representations that contain the propositional structure, are expressible (*lekton*).[113] *Lekton* was understood as an incorporeal entity. When combined with the Stoic tenet that corporeal and incorporeal cannot have an impact on each other, it becomes problematic how it is possible that every rational representation contains a *lekton*. There is no satisfactory answer to this question among the known Stoic texts,[114] but it is worth pointing out that the problem how imagination as a natural capacity of mind and as a constituent of language originates from the Stoic view.

ORATORY AND CHRISTIANITY

Cicero was an eclectic, though of the Stoic orientation, and an orator, but above all a Roman. Through him, it is possible to enter the next phase in the history of the concept of imagination. The Stoics were the first to link language and imagination, but it was the Roman theorists of rhetoric who analysed in detail the relationship between imagination and language.[115]

Oratory, eloquence, or rhetoric was the invention of Greeks. Among the Greeks, Aristotle was not perhaps the most gifted in the art of speaking, but his notes on the subject have been influential. *De Rhetorica* contains two ideas that need to be introduced. First, Aristotle was more cautious than his Roman successors when he evaluated the power of eloquence: 'the way in which a thing is said does affect its intelligibility. Not, however, so much as people think.'[116] Second, Aristotle introduces

[112] Diogenes Laertius 1925, II, 155-157. For *sunkatathesis*, see Long 1991, 110-111. The Stoics also made a distinction between sensory (*aisthêtikê*) and non-sensory, rational and non-rational, and expert and non-expert *phantasia*. See Laertius, II, 159-161.

[113] For the notion of *lekton*, see Barnouw 2002, 157.

[114] Long (1991, 119) refers to Sextus Empiricus's idea that *lekta* do not influence the mind directly, but from a distance, which is, however, a vague explanation.

[115] Watson 1988, 94.

[116] *De Rhetorica* 1404a10-12.

the familiar idea of giving a lively picture of something with the help of the right expression. This conjuring before the eyes with apt wording bears a resemblance to our mnemonic capacity and is used both in poetry and oratory.[117] It is the latter idea that became of particular interest in the later development of rhetorical theory.

If Aristotle acknowledged that imagination can move and please, the classical Roman orators added that it can also inform. In Cicero, this is sometimes referred to as the hybrid theory of ideal imitation.[118] The idea is that imagination enables the apt use of language and in this way is able to represent things not only in a lively and motivating manner, but also in a crystallised form that transcends all the objects of imitation, that is, all the real-life models. In *Orator*, Cicero writes:

> But I am firmly of the opinion that nothing of any kind is so beautiful as not to be excelled in beauty by that of which it is a copy, as a mask is a copy of a face. This ideal cannot be perceived by the eye or ear, nor by any of the senses, but we can nevertheless grasp it by the mind and imagination. For example, in the case of statues of Phidias, the most perfect of their kind we have ever seen, and in the case of the paintings I have mentioned, we can, in spite of their beauty, imagine something more beautiful. Surely that great sculptor, while making the image of Jupiter or Minerva, did not look at any person whom he was using as a model, but in his own mind dwelt surpassing vision of beauty.[119]

Though Cicero is the *ex officio* master of Roman oratory, it is the work of Marcus Fabius Quintilian (ca. 35-95) that is usually taken as most representative of the tradition.[120] In his *Institutio Oratoria*, Quintilian discusses virtually every aspect of laudable speech, but the main concern is what makes a person eloquent. To this Quintilian answers that 'it is the heart and the power of the mind [*vis mentis*] that make us eloquent'[121] and that '[t]he person who will show the greatest power over the emotions [... is called by some] *euphantasiōtos*'.[122] Quintilian's reflection moves along

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[117] See *De Memoria et Reminiscentia* 450a and 452a14-16; *Poetica* 1455a23-25; and *De Rhetorica* 1411b23-1413b1.

[118] Here I follow Thorpe (1940, 34-35). Thorpe calls Cicero's account 'hybrid' because he sees in it Platonic as well as Aristotelian elements.

[119] *Cicero* 1962, 311. The sculpture Cicero is referring to is Athena Parthenos of Phidias, a famous Greek sculptor and architect who lived in the 5th century BC.

[120] See, for instance, Vickers 1988, 34-38. See also Bundy (1927, 105-112), Watson (1988, 66-71), and Cocking (1991, 27-31), who all discuss in some length the third standard name, 'Longinus', but he was re-discovered only at the end 17th century (Thorpe 1940, 55-56) and is therefore not discussed here in detail. Aside from Quinitilian's *Institutio Oratoria*, the canon of classical oratory includes Cicero's *De Inventione* and *De Oratore* and an anonymous work *Ad C. Herennium Libri Quattuor De Arte Rhetorica* (commonly called: *Rhetorica ad Herennium*, composed ca. 92-86 B.C.), which was thought to be also a work of Cicero, for it bears a close resemblance to his works, though it was later shown to be written by someone else. See Howell 1952, 66.

[121] *Institutio Oratoria*, IV, 381.

[122] *Institutio Oratoria*, III, 59 and 61.

the lines of Aristotle's descriptive psychology, but it is articulated curiously differently in one respect : 'the Greeks call *phantasiai* (let us call them "visions"), by which the images of absent thing are presented to the mind in such a way that we seem actually to see them with our eyes and have them physically present to us.'[123] The emphasis here is that though the object of the senses is absent, the apt use of language conjures it back. It is in this sense that classical oratory falls to the category of reproductive imagination.[124]

Before proceeding, it is useful to provide a short note on how imagination was treated in the Christian tradition. Classical Roman society was a pagan world and Christian faith became the acknowledged religion of Rome only by the time of the emperor Constantine, but the Judaeo-Christian (with the emphasis on 'Judaeo') conception of imagination is older than any of those we have discussed so far.

The Judaeo-Christian conception of imagination is based on the Old Testament and on the exegetical work by early Jewish intellectuals. Kearney, whom I follow here, has distinguished four aspects of Judaeo-Christian (or as he calls it, Hebraic) imagination: mimetic, ethical, historical, and anthropological.[125] The concept is first and foremost a reproductive and normative one. Imagination (*jetser* in Hebrew) has a similar root as the word 'creation' (*yetshirah*), and imagination is associated with imitation of God and his works. The normative element can be introduced through the story of Fall. Imagination presents the capacity to create, and because God is the only creature that can create, imagination as a pretended creation is a sign of human sinfulness. Additionally, it makes the human being an impermanent creature. From this arises the historical aspect of imagination, the finite character of human beings constitutes the sense of history and, consequently, imagination, which is 'an activity proper to man which differentiates him from both a higher divine order and a lower animal order and which opens up a freedom of becoming beyond the necessity of cosmic being'.[126] Kearney is somewhat unclear, but one way to explain the last aspect of imagination is through the concept of narrative, that is to say, the essential identity of human beings is constituted by narratives, which again are based on the use of imagination.[127]

Two discussions that would normally follow will be merged. The first is the conception of imagination as it appeared in early Christian thinking. The second is the

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[123] *Institutio Oratoria*, II, 61.

[124] Bundy 1927, 110. Note that here we also face a similar problem as with the Stoics: how can something immaterial affect the material? Classical orators, whose principal interest was not the body-mind interaction, naturally do not reflect on the problem, but the tension between natural and artificial imagination (though in a different form than in the Stoics) is present here as well.

[125] Kearney 1991, 53. For a detailed discussion and further sources see the Chapter I of Kearney's book.

[126] Kearney 1991, 53.

[127] Two articulations of this kind of conception of identity in contemporary thought are MacIntyre 1981 and Taylor 1989.

Neoplatonic theory of imagination. The two are connected[128] but since it was one of the Church Fathers, Augustine, whose view had a prominent influence on later thinkers, and in who Christianity and Neoplatonism meet in interesting ways, the chronological order is broken.

THE MEDIEVAL MIND

It is customary to distinguish two great syntheses in Medieval thought: a Platonic and an Aristotelian one. Both are more or less attempts to reconcile Christianity and philosophy. The first to face the challenge of integrating the classical heritage with Christianity was Augustine of Hippo. The second synthesis appeared almost a thousand years after Augustine, but was by no means less influential than Augustine's.[129] Usually this second synthesis is connected with the Dominican scholar, Thomas Aquinas, who was canonised by the Pope John XXII in 1323. Before discussing Platonist and Aristotelian theories of imagination, I will first introduce an account that influenced Medieval theories of mind, namely that of the Arab philosopher, Ibn Sina (980-1037), or as he is known in the Latin West, Avicenna.[130]

Following Aristotle, Avicenna, like many of his Medieval successors, distinguished between external and internal senses. Of these the latter are focal here. According to Black,[131] Avicenna has three principles that explain how internal senses process the data provided by the five external senses (sight, hearing, taste, smell, and touch). First, there must be a correspondence between an object and a faculty which receives it. The objects divide into two categories: 'the forms or images of the common and proper sensibles (*suwar al-mahsūsāt*) and the "intentions" of those sensibles (*ma'ānī al-mahsūsāt*)'. Second, active and passive faculties must be distinguished. By active faculties Avicenna understands those internal senses that are able to manipulate their objects, whereas the objects of passive faculties 'are merely imprinted on them'. Third, it is not possible for the same faculty to 'both receive and retain a sensible object' because

[128] On the relationship between Early Christian and Neoplatonism in general, see *The Cambridge History of Later Greek and Early Medieval Philosophy*, 137-192. For more detailed accounts, see Bundy 1927, Chapter VIII; Cocking 1991, Chapter 4.

[129] To make such a leap is to do violence to many important developments in Western thought between Augustine and Aquinas. These include such thinkers Boethius (see, for instance, Bundy 1927, 172-176) and above all Arab commentators (see Cocking 1991, 104-140). I believe that the transition is justified, for the developments discussed here are the ones which form the central point of comparison with Hobbes.

[130] Two sources that I rather directly follow here are Black 2000 and Kenny 2005. Avicenna's principal discussion is in *Al-Shifā': Al-Nafs* 1.5 and 4.1-3 (pages 43-45, 58-61 and 163-169 in the 1959 English translation). I am grateful to Doctor Taneli Kukkonen and MA Jari Kaukua for helping me understand Avicenna's position.

[131] All quotations in this paragraph are from Black 2000, 59.

the substrates these operations require are different. From these principles arises Avicenna's classification of internal senses, which consists of 'two receptive-retentive pairs conjoined by the active power of compositive imagination'. It should be noticed that though Avicenna establishes a division between internal senses, in practice they work together and his distinctions are better understood as analytical clarifications.

The first pair, which deals with common and proper sensibles, consist of '[t]he common sense (*al-hiss al-mushtarak*), [which] receives sensible forms of the external senses and the formative or retentive imagination (*al-musawwirach*/*al-khayāl*), [which] retains their images'.[132] The second pair deals with intentions, which are received and retained by the estimative power (*wahm*) and the memorative faculty (*al-dhākirah*).[133] From the point of view of Hobbes what is however perhaps most interesting is the compositive imagination (*al-mutakhayyilah*).

The compositive imagination can be 'random and undirected', but also 'consciously harnessed and controlled by either the estimative faculty or reason'.[134] The activity of the compositive imagination is propositional by its nature and the interaction between imagination and intellect can be understood as a case of syllogistic reasoning: '[a] human intellect wishes to know whether all As are Bs. His cogitative power rummages among images and produces an image of C, which is an appropriate middle term to prove the desired conclusion. Stimulated by this image, the human intellect contacts the agent intellect and acquires the thought of C'.[135] Imagination seems to be here in a similar role as it is in the standard Aristotelian theory, that is, acting as a mediating faculty between sensitive and intellectual parts of soul, but so that it participates to the working of both parts. In sum, Avicenna elegantly re-articulates two ideas: that of passive and active imagination (from Aristotle) and that of the propositional nature of the active imagination (which was present in distinguishable form in the Stoics). Of particular interest is Avicenna's conception of the compositive imagination, which can be, first, either unregulated or regulated, and, second, when regulated has a connection with our rationality.

PLATONISM AND IMAGINATION IN EARLY CENTURIES

Augustine is said to be the first who used the Latin word *imaginatio* as the equivalent of *phantasia*.[136] The constituents of Augustine's philosophy are twofold: Christianity and

[132] Black 2000, 59-60. See also Kenny 2005, 226-227.

[133] Avicenna's account of the estimative power is skipped here. For further discussion of *wahm*, or *aestimatio*, see Black 1993 and 2000.

[134] Black 2000, 60.

[135] Kenny 2005, 227.

[136] For an alternative view, see Watson (1988, 134-135).

Neoplatonism. Christianity was touched upon briefly above; below, some aspects of how imagination was understood in Neoplatonism will be discussed. The central document for the Neoplatonists was *Timaeus*, and Plato's works in general, but Aristotle's impact is also of some importance. Aristotle provides the general framework, but the novelties that Neoplatonism introduces to the history of imagination are based on Plato's speculations on the images of the higher world.

The spherical cosmology of Neoplatonism was created by Plotinus (204-270) and in the theology of emanation related to this cosmology, *phantasia* had a role as a means to get in touch with the One. Cocking suggests that in Neoplatonism the Aristotelian conception of imagination is reversed.[137] If in the Aristotelian theory, imagination was an intermediator between sense and intellect, in Neoplatonism it is a vehicle between the divine and the human mind, a way to reach the mystical union with the One. This is not, however, a fully precise account. If the idea of soul as potentiality is left aside, Neoplatonists accepted Aristotle's conception of *phantasia*, but they developed it in two ways: by studying the relationship between geometry and *phantasia*, and by introducing the possibility of communicating with the divine through *phantasia*. Their contribution concerns then the mantic and epistemic dimensions of imagination.

Proclus (411-485), who is known for his commentaries, especially on Euclid's *Elements*, is important in two respects. Firstly, because of his explicit distinction between *phantasia* and *eikasia*, or the fantastic and the imaginative.[138] When the imagination is operating with *phantasiai* it is purely entertaining and imitative, but when it is working with images, it 'looks to the correctness of the imitation',[139] that is to say, imagination acts as a reflective capacity, or what Proclus calls passive *Nous*, the functioning of which he describes as follows:

> We invoke the imagination and the intervals that it furnishes, since the form itself is without motion or genesis, indivisible and free of all underlying matter, though the elements latent in the form are produced distinctly and individually on the screen of imagination. What projects the images is the understanding; the source of what is projected is the form in the understanding; and what they are projected in is this "passive *nous*" that unfolds in revolution about the partlessness of genuine Nous, setting a distance between itself and that indivisible source of pure thought, shaping itself after the unshaped forms, and becoming all the things that constitute the understanding and the unitary ideas in us.[140]

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[137] Cocking 1991, 53. For the Neoplatonist theory of imagination in general see Bundy 1927, Chapters V and VI: Cocking, Chapter 3; and Watson 1988, Chapter 5. A useful source of original views is Sorabji 2004, 1, section 2 (*Phantasia*) and 3, subsection 12b (*Philosophy of Mathematics*).

[138] Bundy (1927, 140) attributes the distinction to Proclus. For a short account of how the distinction was treated by some later thinkers, see Thorpe 1940, 36-39.

[139] *Commentary of Plato's* Republic I, 191.

[140] Proclus 1970, 45.

The second, and remotely consequent, point of Proclus concerns mathematicals.[141] Proclus opposes Aristotle's idea of mathematical objects[142] (of any kind) as abstractions from matter and understands them in the fashion of Plato as something between the true realm of ideas and the apparent realm of sensations (what was earlier referred to as dianoetic images). Further on, imagination is the capacity by which we understand mathematical objects, which are projected onto our imagination like, to use the favourite metaphor, films onto a screen.[143] Mathematical objects are at the same time independent of the human mind and also corporeal. Proclus explains this mental double vision as follows:

> [I]magination, occupying the central position in the scale of knowing, is moved by itself to put forth what it knows, but because it is not outside the body, when it draws its objects out of the undivided centre of its life, it expresses them in the medium of division, extension, and figure. For this reason everything that it thinks is a picture or a shape of its thought. It thinks the circle as extended, and although this circle is free of external matter, it possess an intelligible matter provided by the imagination itself. This is why there is more than one circle in the sense world; for with extension there appear also difference in size and number among circles and triangles.[144]

Mathematical knowledge is then a hybrid of discursive reason and imagination; some of its brands, like geometry, deal more closely with corporeal entities, some, like arithmetic, do not have anything to do with the imagination. In educational terms, mathematics is a discipline which stands between the study of nature, preparing the mind for the more serious study of dialectics and 'the pure realities'.[145]

Though Neoplatonism could be characterised as mystic, this holds true perhaps only from the modern secular point of view – 'demonic' would be the proper word.[146] The ecstatic plane of existence and intuitive conception of knowledge were relevant, but by its essence Neoplatonism was a rationalistic system.[147] This emphasis changes in Augustine.

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[141] Already discussed by Plotinus in his *Enneads* (IV.3.30), but Proclus's discussion is more developed and systematic.

[142] Aristotle reflects the subject in *Metaphysica* Books XIII and XIV. For a discussion, see Lear 1982.

[143] Proclus 1970, 41-45.

[144] Proclus 1970, 42.

[145] Siorvanes, 1998 (the subsection: 'Philosophy of science').

[146] For this element of *daimôn* in Neoplatonism, see Watson 1988, 112.

[147] There were, however, truly mantic movements in the period of Early Christianity of which the most known is perhaps Gnosticism. As Cocking (1991, 81) writes, '[g]nosticism is less a matter of doctrines than of rites. In and outside Christianity it is closely associated with alchemy and magic, and especially with the religious use of magic in theurgy'. These tendencies did not by any means fade away later. For mysticisim and imagination in the Middle Ages, see Bundy 1927, 199-210.

Augustine is known for two things: his subjective psychology in general, and his conception of will in particular. As the author of *Confessions*, he is sometimes even considered to be the first of the moderns. For the discussion here in hand, his significance however rests on a careful analysis of imagination.[148]

Augustine's discussion of imagination is based on a central distinction in his theory of human nature between the outer and the inner man. The outer man is the one who is, through the five senses, in contact with the material world, whereas the inner man is the one who reflects what is happening in the soul of a person. On a general level, Augustine sees imagination in the customary way as a mediator between senses and intellectual knowledge, but he also analyses the process from the other end, as a movement from intellect to the body. Imagination deals with incorporeal images, but it is not completely clear how Augustine exactly understands the relationship between corporeal memory images and intellectual images of inner vision.[149] Nevertheless, *De Trinitate* suggests something like the following.

The soul acquires knowledge through a specific kind of vision, which is the result of the activities of the senses, imagination, and intellect, each of which has three components. In this process the sensory, or the corporeal vision, consists of the object, the intention to look at it, and the act of seeing, whereas imagination, that is, an inner (sometimes a spiritual) vision, is a combination of the memory image, the will to recall it, and the act of holding it firmly in one's mind. The components of the last part of the process, intellectual vision, are the intelligible form, the will to attend to it, and the rational reflection of this. This type of vision focuses on intelligible reality. In the process, however, the two capacities of the soul that determine the epistemic status of an image are imagination and will.[150] Lastly, in Augustine imagination is discussed in relation to sin. Having false imaginations, above all of one's own status, expresses the original arrogance of human beings, but certain sorts of imaginations, that is, dreams, are not sin because in dream an agent does not act on purpose.

Augustine's treatment of different kinds of imaginations is rich.[151] They can be images that follow from a sensation, say, the impression of a tree, images that are in the memory but whose object is no longer (these he calls *phantasma* or *imago*) – for example, an image of the father who died in one's early childhood – and fictive or mythical images, like Manichean world pictures. Yet another set of imaginations is

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[148] Augustine's discussion can be found in *De Trinitate* (especially Book 11) and *De Genesi ad Litteram* (Book 12), some of his letters, and other treatises (like *De Musica*, Book VI). For commentary see Bundy 1927, 153-172; Cocking 1991, 70-76; Watson 1988, Chapter 6; Markus, 1967, 362-373 and 374-389; Breyfogle 1999, 442-443; and especially O'Daly 1987, 106-129.

[149] Letter 162.

[150] *De Genesi ad Litteram* 12.11.

[151] This paragraph, if not mentioned otherwise, is largely based on Letter 7 and O'Daly 1987, 107-111 and 120-127.

distinguished on the basis of *intentio*. It is likely that imaginations recalled from the memory belong to this class, but Augustine also mentions intentionally formed or anticipated imaginations like that of the city of Alexandria, a place where the person imagining has never been, but the image of which he or she is able to raise to the mind on the basis of the image of a city and, say, what he or she has heard of Alexandria. The last two types of *phantasia* include images of representational objects, and visions. The first Augustine understands, following Plato, to be theoretical by nature, for example, the objects of geometry. These are, to borrow O'Daly's characterisation, 'real but necessarily imagined natural objects' like 'a representation of the entire universe as well as objects of certain sciences or branches of theoretical knowledge (*disciplinae*), such as geometrical figures, musical rhythms, and metrical patterns'. Visions and prophecy, Augustine explains, require imagination, but need to be separated depending on their physical accompaniments, like the burning bush that appeared to Moses, or an imagination like Peter's vision at Joppa.[152] Here Augustine is also following Plato, for he insists that though visions require imagination they are not yet visions for they need to be interpreted by reason. It is not a prophet who is able to receive visions, but the one who is able to interpret them according to the will of God.

It is not completely sure whether Augustine did understand, first, imagination to have a propositional structure, as the Stoics did, and, second, whether words and signs are imaginations. *De Trinitate* suggests that both ideas are possible. In his treatise Augustine writes that words and signs are required for the rational formulation of things.[153] In general, imagination then has two roles in Augustine's psychology: it 'transmits sense perception to the intellect and represents ideas received from the illuminated intellect'.[154] It has, moreover, some further aspects.

Firstly, there are dreams, which to Augustine are involuntary instances of imagination. Dreams can be true or false. They can be true in two ways: literally and symbolically.[155] The symbolism of dreams and the interpretation of them as signs of God's will offer a bridge to the next dimension of Augustine's analysis of imagination, namely supernatural communication, which operates via the imagination. Through the body, a person is in contact with demons, whereas angels can communicate directly to one's mind.[156] Augustine, however thinks that prophecy can be corporeal and that with imagination we are able to have non-verbal communication with dead and living souls.[157]

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[152] See *Exodus* 3:1-15 and *Acts* 11:5-6.

[153] *De Trinitate* 255-260, 285-286, and 483-486 (references of this work are to pages).

[154] Breyfogle 1999, 442.

[155] *De Genesi ad Litteram* 12.18-30

[156] For demons, see Letter 9, *De Civitate Dei* Book 18 (106-109); and *De Divinatione Daemonum*, 426-428. For angels, see *Enchiridion*, 419 and Letter 162.

[157] Letter 9.

Thirdly, like many before him, Augustine considers it possible that imagination has material consequences.[158] Augustine considers the consequences of these intensive and effective imaginations by giving some examples. Firstly, to ejaculate, the act of sex is not required. Another example of the mind-body interaction is the relationship between a mother and an embryo. Augustine believed that an unborn child can be affected by the imaginations of the mother. A further twist is to raise the question of the moral nature of imaginations. In the case of "nocturnal emissions" Augustine thinks that we are not responsible for our imaginings, but it makes sense to conclude that if a person deliberately and passionately re-enacts a sexually oriented imagination and this leads to an orgasm, this is sin. A similar line of thought could be applied to controlling our passions. It is possible that imaginations may excite movements of the soul, for example, to amplify our anger, but as good Christians we need to control the flight of our fancy.

Lastly, Augustine, who taught rhetoric in Carthage and later hold a chair in subject in Milan, was aware of the link between imagination and language. His analysis of the relationship is positive. Imagination and various techniques of expression are able to provide images of which the intellect is able to grasp the truth via their similarity.[159] This aesthetic imagination, however, has a religious colour. Imagination can reveal parts of supernatural reality, but Augustine's reply is negative when it comes to the question whether the human imagination could create something totally new and original, for only God can create in the true sense of the word.

To summarise, Augustine discusses all the principal forms of imagination at length, in detail, and with subtlety. Secondly, though there is no room for a more detailed study it is safe to state that Augustine's explorations into imagination, influenced many generations of thinkers, including our next subject, Aquinas.

THE ARISTOTELIAN THEORY OF IMAGINATION AND ITS CRITICS

Generally, it can be said that Aquinas, whom I do not claim here to be the only voice of scholastics, much less, of Medieval philosophy, sharpens the distinction between reason (or intellect) and imagination that was already present in Aristotle.[160] Imagination (*imaginatio*) is 'a movement caused by actual sensation'[161] and one of the internal senses

[158] *De Trinitate* 110-111 and 321-356. O'Daly (1987, 111) suggests that this was an old and popular belief developed not only by Augustine but also, for example, by Porphyry.

[159] The idea can be found from Aristotle, see *De Poetica* 1451b.

[160] For Aquinas's theory of the soul and imagination see, above all, *ST* I.q77 and 78; *SCG* 2.67 and 73; and *CDA*, 327-340. For a discussion, see Bundy 1927, 216-224; Cocking 1991, 151-155; Kenny 1993, 36-40; and Stump 2003, Part II, especially, 256-60. For the early and the mature scholastic views, see (respectively), [Anon.], 'Soul and its Powers', ca. 1225 (in *The Cambridge Translations of Medieval Philosophical texts*, III, 26-27) and Reisch 1503, 10.2.21. For a discussion, see Bundy 1927, Chapter IX; Mahoney 1982; Marenbon 1991, Chapter 5; and Pluta 2004, 21-24.

[161] *SCG* 2.67, 203. Cf. *SCG* 2.73; *ST* I.q.77.a.7; and *CDA*, 337-338.

(*sensus interiores*). It is a prerequisite for understanding, but only when the soul is united with the body.[162] Secondly, though imaginations can arise without external stimulus, as in dreams, Aquinas holds that imagination is limited to experience; 'for we cannot imagine what we have never perceived by the senses, either wholly or partly; as a man born blind cannot imagine color.'[163] Thirdly, Aquinas describes imagination as a special kind of 'the storehouse of forms (*thesaurus formarum*), that is, phantasms, of sensible things when the latter are no longer present to the external senses'.[164] Imagination however differs from memory 'by its power to decontextualize images'.[165] When memory always recalls things in the context they were perceived, imagination does not has no such constraint.[166] Lastly, Aquinas shares with Aristotle the idea that 'our intellect understands material things by abstracting from the phantasms; and through material things thus considered we acquire some knowledge of immaterial things, just as, on the contrary, angels know material things through the immaterial.'[167] It is, then, intellect alone that understands the essences of things[168] and by understanding (*intelligere*) Aquinas means here that intellect understands 'the quiddity of a material thing', that is, the real nature or essence of a thing.[169]As he writes:

> for by the intellect's command there is formed in the imagination a phantasm corresponding to such and such an intelligible species, the latter being mirrored in this phantasm as an exemplar in the thing exemplified or in the image.[170]

Aquinas's formulation calls for a further comment. When he writes that in imagination a phantasm is formed that is 'an exemplar in the thing exemplified or in the image', this sounds like the Neoplatonic idea of geometrical objects, the only difference being that he appears to make a general statement. That is, in a similar vein to the way we abstract from the phantasm of a particular triangle certain general qualities, like magnitude or angles, so do we with the other sorts of objects. For instance, from a phantasm of a man, say Socrates, we abstract the qualities 'rational' and 'animal'. This sort of straightforward rationalism, however, raised objections. Though the reaction to Aquinas,

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[162] *ST* I.q.78.a.4 and *CDA*, 337.

[163] *ST* I.q111.a3. r1 and *CDA*, 337.

[164] Mahoney 1982, 606 and note 18.

[165] *ST* I.q.78.a.4. Cf. *SCG* 2.74; *ST* I.q78.a4 (editor's note c on page 141); and *CDA*, 415..

[166] Aquinas is confident on the strength of memory here, but it is reasonable to think that we quite often forget the context in which we perceived a thing.

[167] *ST* I.q.85.a1. Cf. *De Anima* 429a10-430a26.

[168] *ST* I.q57.a1.r2.

[169] *ST* I.q85.a5.r3. It was a commonplace, held for instance by Siger of Brabant (c. 1240-1280), to think that sense and imagination conceive things as material, that is, as particular. See Mahoney 1982, 613.

[170] *SCG* 2.73, 226. Cf. *ST* I.q90.a1.

and intellectualist scholastism in general, was diverse and took place in many areas of philosophy, in what follows I will narrow down my discussion to a particular reaction, namely to William Ockham's view of imagination.[171]

Ockham's discussion of imagination can be approached from two perspectives: that of sensory cognition and that of intellectual cognition.[172] This seems to correspond with the basic Aristotelian idea of imagination as acting in relation to both external sensation and intellect. Ockham also followed the paradigm of faculty psychology and considered imagination to be an internal sense which processes the data of external sensations. However, what is more interesting is where Ockham diverged from the standard view. As is well known, Ockham denied the existence of species. As Hirvonen explains, in sensory or intellectual cognition, there is no 'need to postulate any species of things as intermediates between the things and the abstractive cognitions of them'.[173] In this abstractive cognition, imagination plays a role.

Imagination, unlike sensation, does not refer to an image of a thing in the mind, but to an act of the mind. For instance, a complex imagination, say, that of a golden mountain consists of 'simultaneously an act with respect to a mountain and with respect to gold'.[174] Imaginations are not, then, mind pictures, but 'abstractive cognitions of a thing [...] caused by the intuitive cognitions of the thing or the habits generated by the abstractive cognitions [that] exist in the interior senses (fantasy)'.[175]

Up to a point, the intellectual cognition follows the same pattern as sensory cognition. In intellectual cognition, intuitive cognition is 'a kind of notification of the thing which is apprehended, but it is not a proper judgement of the existence of the thing'.[176] For such judgement it needs the help of other acts of mind and in particular those acts that are in the intellect. The first difference arises concerning how the internal process of cognition is understood in the intellectual soul. In the operation of intuitive intellectual cognition, when the objects are the intellect's own functions, no 'sensory cognitions are involved'.[177] Instead intellect can have intuitive acts as its interior objects, which include its own acts (reflection), the passions of will, and complex objects. The

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[171] For the differences between the two, see Pluta 2004, 24-26.

[172] For a discussion, see Stump 1999 and Hirvonen 2004, Chapters 3 and 4. I follow the latter, which also offers extensive documentation of the original sources.

[173] Hirvonen 2004, 113.

[174] Hirvonen 2004, 80.

[175] Hirvonen 2004, 78. Note also that objects of imagination cannot be the external objects themselves. For the notion of habit, see Hirvonen 2004, 56-59.

[176] Hirvonen 2004, 76-77. The necessity of sensory intuitive cognition is not completely clear, for 'Ockham seems to think that sensible exterior objects immediately and effectively cause intuitive cognitions of themselves in the intellect, but they cannot do so unless they cause cognitions of themselves in the sensory cognitive potency', but then again he also held that '[b]y God's power, however, human intellects could perceive the external world without senses' (Hirvonen 2004, 109).

[177] Hirvonen 2004, 110.

last are possible only in intellectual cognition and should be distinguished from complex imaginations, which belong to sensory cognition. To conclude, Ockham offered a radical alternative to the standard reading of imagination, his originality being the idea of the imagination as an act of mind and not as a more or less cognitive second-order sensation.

Ockham's influence was great and his radical philosophical theology changed the course of philosophy in many ways. It would, however, be misleading to think that the less radical philosophical psychology, that is, the standard Aristotelian theory (or faculty psychology as the conventional name goes), faded away. This theory is relevant for the present study, because the Aristotelian theory of the soul and its functioning is the theory which Hobbes objected to. Therefore, a more detailed look at some of its developments needs to be introduced here.

The Aristotelian theory of the soul that dominated philosophical psychology from the Arab commentators to the time of Hobbes was rather uniform. Here this theory will be introduced – with some clarifying departures – through its developed form, that is, as it is articulated in Gregory Reisch's (ca. 1467-1525) influential *Margarita Philosophica* (1503).[178]

The starting point of faculty psychology is the division into vegetative, sensitive, and intellectual souls.[179] Each soul then has various faculties which have different functions. For instance, one of the nutritive faculties of the vegetative soul is digestion. What is of special interest here is how the soul understands the external world and how it is possible to have intellectual (universal, abstract) knowledge. Let us look at these in turn.

Following Aristotle, it was thought that sensation is the foundation of knowledge. To be more precise, the perceptive faculties of the sensitive soul was divided into the external and internal senses. The first include the five external senses (vision, hearing, smell, taste, and touch),[180] which operated with sensible objects when these objects are present. The internal perceptual senses operate with the same objects but when these objects are not necessarily present anymore. Imagination was one of the internal senses, the others being cogitation, memory, fantasy, and common sense.[181]

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[178] Here I follow mainly Park 1988 and Mahoney 1982, but I have also utilised the short discussion by Leijenhorst (2002, Chapter 2). References to Reisch's work are given by Books (L), Tracts (T), and Sections (C), all in Roman numerals. For example LVII.TII.SXXV refers to section 25 in the second tract of the eighth book of *Margarita Philosophica*.

[179] In *Margarita Philosophica*, the vegetative soul is discussed in LX.TI, the external capacities of the sensitive soul in LX.TII.CV-XX, the internal capacities of the sensitive soul in LX.TII.CXXI-XXXI, and the intellectual soul in LXI.

[180] *Margarita Philosophica* LX.TI.CV.

[181] *Margarita Philosophica* LX.TII.CXXI. Two clarificatory remarks are needed here. First, though the standard number of inner senses was five, there was no agreement on this question. Some Scholastic thinkers, like Phillip Melanchton (1497-1560) considered that there were three internal senses and Aquinas lists four of them. See Leijenhorst 2002, 91-92. A historically and systematically fruitful discussion of various faculties can be found in the eight disputation on the commentary to Aristotle's *De*

Especially in the later forms of faculty psychology it became customary to understand the inner senses as separate faculties located in different parts of the brain.[182] This tendency, which I will briefly return to below, was developed in the empiristic, physiological theories of the soul in Renaissance.

The role of the sensitive soul was to provide material to the intellectual soul. Knowledge of external objects that the sensitive soul provided was particular and more general and universal knowledge was obtained only by the operation of the rational faculties (will, [intellective] memory, and intellect) of the intellectual soul. This idea of the gradual acquisition of intellectual knowledge was clearly expressed by Albert the Great (ca. 1200-1280), Aquinas's teacher, and it is called the principle of the grades of abstraction.

The principle of the grades of abstraction, put very simply, says that different faculties of the soul play different roles in the acquisition of intellectual knowledge. The first stage is sensation. In the sensation of an external object there is 'an intention (*intentio*) or species of the material thing which enables us to have sense knowledge of that thing'.[183] Leijenhorst explains this in more detail:

> species are immaterial qualities, such as colour, which are impressed by the medium, i.e. air or water [...and they] are received by the sense organs: colour and light by the eye olfactory species by the nose, audible species by the ear, etc. [...] The species emitted by the external object are transported by sensory, vaporous spirits to the brain, the seat of the faculties of inner sense'.[184]

Further on, when species arrive to the brains they are a type of raw data, and external sensory faculties are unable to quantify them. The initial organisation of raw data is done by common sense (*sensus communis*). The second grade of abstraction takes place in the imagination, where an image of a thing is apprehended when its sensible origin is no longer present. In Albert's account the role of the imagination appears to be rather instrumental. As Mahoney puts it, imagination 'enables us to form an image before our interior eyes (*prae oculis interiribus facere imaginem*) and to prepare images for the use of phantasy and intellect, which represent the third and fourth grade of abstraction respectively'.[185] In sum, despite the empiristic grounding, in faculty psychology the

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Anima by the Spanish philosopher and theologian Francisco Suarez (1548-1617). Second, there was no one answer to the question what is the relationship between *imaginatio* and *phantasia*. Normally these were separated and it was common to think that *imaginatio* and *phantasia* were, to use the terminology adopted, passive and active forms of imagination.

[182] For an example of where the different inner senses were located, see the picture in *Margarita Philosophica* LX.TII.CXXI.

[183] Mahoney 1982, 602.

[184] Leijenhorst 2002, 59-60.

[185] Mahoney 1982, 603.

acquisition of knowledge is conducted by the intellectual, rational part of the soul and by the immaterial faculties of mind.

TWO NOTES ON IMAGINATION IN THE RENAISSANCE

When we move to the next phase in the history of imagination, a rather different approach arises. The distinctive feature of the Renaissance discussion of imagination is its linkage to poetry, civil life, and education.[186] For instance, in his *Lectorium antiquarum*, Lodovico Ricchieri (1453-1525), a central Renaissance theorist, writes:

> But with respect to these [fables for the young] we must note carefully that the poets are not condemned outright by Plato; since to the degree in which he holds that they should be rejected when they disturb the state and invent shameful things, to that same degree he embraces them and kisses them tenderly when they exhort to moral improvement, celebrating elegantly and eloquently in their praises of heroes or their hymns to the gods.[187]

Here poetry has a clear political function and imagination is considered as a risky capacity. A more nuanced view is introduced some fifty years after Ricchieri by Bernardo Tasso (1493-1569), who defined the task of the poet to be:

> by imitating the human action through the delightfulness of plots, through sweetness of the words arranged in a most beautiful order, through the harmony of the verse, to adorn human souls with good and gentle characters, and with various virtues.[188]

Poetry (and literature in general) is to be harnessed to the service of the higher end of civilising the public, educating them, and giving examples of the moral way of life.

The technical discussion concentrated on the notion of *idolo*. When talking of the difference between bad and good poetry, another Italian literary theorist, Jacobo Mazzoni (1548-1598) discusses the Renaissance conception of poetic imagination. A poetic image 'has its origin in our artifice and is born of our fancy [*phantasia*] and of our intellect through our choice and our will'.[189] This view is complemented by Bernardo Segni (1504-1558), who says that poetic imagination consists of two stages, where 'words imitate concepts just as its [*idolo's*] concepts imitate things'.[190] Segni is utilising the known formula of Aristotle from *De Interpretatione*, which states that 'spoken

[186] There is a mountain of works that discuss the field. Some starting points can be found in Cocking 1991, Chapters 9 and 10. For a thorough study, see Weinberg (1961), whom I have followed here.

[187] Ricchieri 1516/7?, 158. Quoted in Weinberg 1961, 57.

[188] Tasso 1562, 12. Quoted in Weinberg 1961, 282-283.

[189] Mazzoni 1587, Part I, section 10. Quoted in Weinberg 1961, 324. See also Cocking 1991, 207.

[190] Segni 1573, fol. 86v. Quoted in Weinberg 1961, 301 (square brackets mine).

sounds are symbols of affections in the soul, and written marks symbols of spoken sounds'.[191] Poetic language must directly affect the soul by imitating the order of things. This articulates the idea of poetic imagination as lively images reproduced by right expression. This has often been discussed on the level of literary theory, but the underlying psychological current is equally important.

In his recent study of the constituents of Hobbes's philosophy, Leijenhorst has emphasised the influence of Italian natural philosophy on Hobbes. A similar observation was earlier made by Thorpe.[192] Aside from the main similarity, the tendency to naturalise aesthetics, Thorpe distinguishes two ideas from the Continental Renaissance that are relevant to Hobbes. The first was the empiristic, physiological psychology and naturalistic epistemology of Bernardino Telesio (1509-1588), whereas the second was the consequence of this for aesthetics, put forward by Tommaso Campanella (1568-1639) and made known in Europe by the Spaniard Juan Huarte de San Juan (1529-1588).

Telesio held that all knowledge is based on observation, but by observation he did not refer only to the sensation of the objects of external reality. Instead, to observe was to become conscious of the effects of these objects on us. These observations may be understood as imaginations or phantasms. The second major idea concerns the nature of reasoning. To Telesio, making a judgement, which was the basis of reasoning was the second-level observation of similarities in various sensations, and for this language was not required. He even claimed that general concepts were formed on the basis of this analogical reasoning. Telesio then thought that reasoning was in accordance with the natural processes of the mind and even perhaps reducible to certain physiological processes.

Like Telesio, Campanella understood memory and imagination to be extensions of sensation, but he also differed from his teacher. Campanella emphasised the subjective element in sensation and distinguished between reproductive and creative imagination. Reproductive imagination is a reenacting and repeating faculty, creative imagination is responsible for the succession of different contents of the mind. This proto-associationism shows that Campanella did not understand creative imagination in a modern fashion, but as creating a unity between different ideas in the mind.

To determine the exact role Huarte played in European thought and especially in 17thcentury English philosophy and criticism would deserve a book of its own. Here it is, first, sufficient to say that his *Examen de ingenios para las sciencias*[193] spread rapidly

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[191] *De Interpretatione* 16 a4-5.

[192] Leijenhorst 2002, 11 and Thorpe 1940, 39-48. Two works of Schuhmann (1988 and 1990) also discuss the topic. I follow Thorpe's presentation.

[193] Originally written in 1575, the book was translated into English in 1594 by Richard Carew, a Cornish scholar. Though Carew knew Spanish, as s well as other major European languages, his translation was based on the Italian version of *Examen* by poet Camillo Camilli. See Rogers 1959, ix-xi.

among the European intelligentsia during the latter half of the 16th century and was likely to be known by a learned person. Aside of a random similarity, we have some evidence that Hobbes had read Huarte.[194] Secondly, to the discussion in hand, Huarte has an instrumental role. His view of imagination is introduced as a point of contrast.

Huarte's 'essay in scientific vocational guidance'[195] is based on a distinction introduced by a mathematician and philosopher Girolamo Cardano (1501-1576). Cardano divided human faculties into three classes: memory, reason, and imagination, which turned in Huarte's treatment into the tripartite: memory, understanding, and imagination.[196] From this, Huarte develops a theory how every person has his or her own special wit or mental aptitude.[197] For example, persons with a good memory are able in languages and law, whereas those with a developed understanding can do well in logic and theology. In his pedagogical physionomy, Huarte creates a strong association between imagination and poetry (and arts in general). This would be a rather conventional solution, if Huarte had not added that imagination is the mental faculty needed in many practical arts. He writes:

> From a good imagination, spring all the Arts and Sciences, which consist in figure, correspondence, harmonie, and proportion: such are Poetrie, Eloquence, Musicke, and the skill of preaching: the practice of Phisicke, the Mathematicals, Astrologie, and the gouerning of a Common-wealth, the art of Warfare, Paynting, drawing, writing, reading, to be a man gratious, pleasant, neat, wittie in managing, && all the engins & deuices which artificiers make: besides a certain speciall gift, whereat the vulgar maruelleth, and that is, to endite diuers matters, vnto foure, who write togither, and yet all to be penned in good sort.[198]

On Huarte and his treatise, see Rogers 1959, v-xii. The Cavendish library holds three copies of the work: Camillo Camilli's Italian translations from 1590, Salustio Grati's translation ('pura italiana') from 1603, and the English translation by Carew from 1640. See *Chatsworth Catalogue* , II, 316.

[194] Both works, Carew's translation and Hobbes's *Leviathan*, are dedicated to Sir Francis Godolphin, but these are two different persons. The first Francis was a landowner and a politician and the personal friend of Carew, when the latter was a brother of Hobbes's acquitance from the1630s, a poet Sidney Godolphin who belonged to the Great Tew, a circle of intellectuals peopled by Viscount Falkland who discussed on the questions of religion. See J. P. D. Cooper, 'Godolphin, Sir William (b. in or before 1518, d. 1570)', Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://www.oxforddnb.com/view/article/67867, accessed 9 May 2005] and Anne Duffin, 'Godolphin, Sidney (bap. 1610, d. 1643)', Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://www.oxforddnb.com/view/article/10881, accessed 9 May 2005]. Among Hobbes studies, Thorpe (1940, 42-48) discusses Huarte's work, and Malcolm (2002, 458) points out that Hobbes had read Huarte. On the basis of the latter and what the Cavendish library catalogue tells, it can be concluded that Hobbes read the Italian translations.

[195] Thorpe 1940, 42.

[196] Spingarn (1957, x) attaches the division straightly to Huarte.

[197] Huarte 1959, Chapter VIII.

[198] Huarte 1959, 103.

Huarte's all-embracing account of the wonders of imagination is not perhaps precise or coherent in every respect, but it stands as an illuminating contrast with preceding views. When in the previous accounts, imagination was something specific, in Huarte it has become a capacity that is used to signify all sorts of intellectual activities of human beings.

Huarte's view in particular, and, the Renaissance ideas in general, are echoed among Hobbes's predecessors.[199] One of the early Elisabethan literary critics, George Puttenham (1529?-1590), using the old wording of Quintilian, distinguished between persons with a disordered phantasm ('*phantastici*') and '*euphantasiote*', a person whose imagination combined with 'sound & true judgement'.[200] The latter was essential for all civilised life. Non-paradigmatic sensory experience had become the Daedalus of the mind.

The relevance of the selective history of imagination given above lies not so much in an attempt to show that Hobbes's ideas on imagination were current in earlier thinkers or in his time. It was introduced in order to show that imagination has occupied many minds before him and that the concept has a rich history. The remainder of the chapter discusses Hobbes's vocabulary or lexicon of imagination and it seeks to point out possible similarities with some of the views discussed above. In brief, in Hobbes's conception of imagination, the matter of imagination is limited to the experience and in this sense imagination is reproductive, but because its results are not, it is also productive. From this starting point, Hobbes builds up a new account of how the world, mind, and language relate; an account that we find later in a refined form in Hume and Kant.[201]

CONCLUSION: HOBBES AND THE LEXICON OF IMAGINATION

Hobbes is not always clear in his use of concepts.[202] The difficulty is not only that his vocabulary changes from text to text, but also that the content of a single concept

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[199] In the latter transition, Spingarn's (1957) essay is still useful.

[200] Puttenham 1970 [1589], 19-20.

[201] For Hume's conception of imagination, see Raynor 1982/3 and Hakkarainen 2005.

[202] Hobbes's reflections can be found in *Leviathan* II, 4-5 and *Concerning Body* IV.25.7, 396. For *eikasia*, *phantasia*, and *imaginatio*, see *Concerning Body* IV.25.10, 404 and IV.25.7, 396. See also *Leviathan* XLV, 358. For an attempt to clarify Hobbes's terminology, see Cantalupo (1991, 43-44 and 49-50), which is, however, somewhat strained. More plausible analyses are Thorpe (1940, 79-82) and Sacksteder (1978, 33-45).

An acknowledged reason for vagueness is that no developed philosophical vocabulary in English existed in Hobbes's time. Tuck (1989, viii) has summarised the issue: 'Hobbes created English-language philosophy. Before his work, there was little written in English on the more technical areas of philosophy – on metaphysics, physics, and even ethics […] But after Hobbes, there was no area of human enquiry deemed inappropriate for the English language'. For a misapprehension of Hobbes in these terms, see Peters 1967, 94. I share the view that Hobbes's contribution to the philosophical

changes when it is discussed in relation to other concepts. This is particularly true in the case of imagination.

A look at Hobbes's terminological reflections on imagination shows that he was aware of the Greek and Latin origins of the concept. This is present on the level of etymological references, but above all in Hobbes's insistence that imaginations should not be understood unequivocally as visual, but more broadly as something appearing to the mind as a result of or originating from sense-perception; 'And this is it, the Latines call *Imagination*, from the image made in seeing; and apply the same, though improperly, to all the other senses. But the Greeks call it *Fancy*, which signifies *apparence*, and is as proper to one sense as to another'.[203]

The vague nature of Hobbes's view of imagination may be due to the fact that we have lost the language and conceptual framework in which Hobbes thought and it is difficult to reconstruct them. Certainly, a perfect reconstruction is not possible, but I believe that a plausible one is. Hobbes's ideas on imagination were developed at a time when many traditional ideas existed (though not necessarily in the same form as they were originally formulated) side by side with some novel ones. This hypothesis needs to be studied in more detail.

Hobbes's theory of imagination does not seem to demonstrate a great deviation from, or break with, the preceding ones. His account is strikingly similar to the prevailing idea of imagination as a sort of second-order perception. What is particularly worth noticing is that on some fundamental issues Hobbes seems to share a common ground with Aristotle and Aquinas, thinkers who are often seen as antithetical to him.

Firstly, all three hold that incorporeal things cannot be imagined.[204] Secondly, Hobbes holds, like Aristotle and Aquinas, that imaginations proceed from sensation.[205] Again, all three think that imaginations are states of mind where the object of sense perception is not present or is otherwise obscure.[206] Hobbes also unites some abnormal experiences under imagination.[207] Lastly, to Aristotle, Aquinas, and Hobbes imagination,

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vocabulary in English is remarkable, but at the same time the complexity of the development should be acknowledged. That is to say, earlier attempts to provide a vernacular philosophical lexicon exists. See, for instance, Lever 1573. For a discussion, see Howell 1952, 61-62 and Gilbert 1960, 199-200.

[203] *Leviathan* II, 5.

[204] See *De Anima* 427b14-17; *ST* I.q17 and *CDA*, 325; *Leviathan* III, 11.

[205] See *De Anima* 425b25 and 428b10-13; *SCG* 2.67 and *CDA*,305; *Leviathan* I, 4. See also *ST* I.q33.a3.r.3: 'The use of reason requires the due use of the *imagination* and of the other sensitive powers, which are exercised through a bodily organ. Consequently alteration in the body hinders the use of reason, because it hinders the act of the *imagination* and of the other sensitive powers.'

[206] *Leviathan* I.II, 5. Cf. *De Anima* 428a33-35; *ST* I.q78.a4.

[207] For Hobbes's list, see *Leviathan* II, 4-8 and *Concerning Body* IV.25.7-9, 396-402. Cf. the Latin *Leviathan*, in *OL*, III, 537. This similarity holds true at least in the case of Aristotle. See also the above discussion of non-paradigmatic sensory experience.

so it seems, stands somewhere between sense and reflexive thinking.[208] It is, however, on this last point that Hobbes seems to differ from Aristotle, Aquinas and the like. To phrase the difference by means of a heuristic exaggeration, in Hobbes imagination *is* a form of reflexive thinking.

The first substantial difference between Hobbes and Aristotle and Aquinas is that the latter two had a hylomorphic model of the world and the mind, whereas Hobbes was a strict materialist. To him the world and the mind are matter in motion and scientific explanations should be in accordance with this tenet. The second difference is that Aristotle and Aquinas, as well as Plato and his followers, thought that understanding reality is essentially an intellectual activity, a view that was also popular among some contemporaries of Hobbes.[209] According to these, there is a special capacity in the human soul that apprehends the world that is intelligible in itself and this capacity does not have direct connection to the material reality. As Aquinas writes:

> It must furthermore be observed that the intellect informed by the species of the object, by understanding produces in itself a kind of intention of the object understood, which intention reflects the nature of that object and is expressed in the definition thereof. This indeed is necessary: since the intellect understands indifferently a thing absent or present, and in this point agrees with the *imagination*: yet the intellect has this besides, that it understands a thing as separate from material conditions, without which it does not exist in reality; and this is impossible unless the intellect forms for itself the aforesaid intention.[210]

What Aristotle, Aquinas, and Hobbes share is the idea that imagination is something apparent, and as such perhaps unreliable, but whereas Aristotle and Aquinas think that it is the intellect that is able to overcome this when with the help of imagination(s) it grasps the essence of things from their particular occurrences, Hobbes does not see any ground to go beyond the use of five senses and what follows from this. Instead of a qualitative alteration (from sensational to intellectual, or material to immaterial) there is motion of bodies upon which order is established by correct scientific language that arises from a

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[208] See *De Anima* 427b14-17and 431a1-432a; *De Memoria et Reminiscentia* 449b31-450a14 and *De Motu Animalium* 702a19-20. In Aquinas, see *ST* I.q.78.a.4 and *CDA*, 383.

[209] See *De Anima* 429a10-431b19 and *ST* I.q79, especially a3-4 and *CDA*, Chapters 9-13. For contemporaries, see Descartes 1984, II, 50 (AT VII:72). For a discussion see Jesseph 1999, 210-215. The case of Ockham, and perhaps, other nominalists is more complicated. It has been customary to relate Hobbes with this school of thought and some similarities indeed exists (for these, see Malcolm 1983, Part I. Hobbes himself does not always speak in positive terms of his alleged intellectual predecessors. See *Historia Ecclesiastica*, in *OL*, V, 399). One similarity is the denial of intelligible species, but then again, as the discussion of Ockham above shows, the Medieval nominalists made a distinction between sensory and intellectual soul, which is not present in Hobbes. Concerning imagination, Ockham's account of imagination as an act could in general also fit to Hobbes's view (especially, if the activities of the mind are understood as variation of the motion of bodies), but then again the link Hobbes makes between sensation and imagination appears to speak against this, and therefore it is concluded that the matter needs further study.

[210] *SCG* 1.52.

form of imagination, that is, understanding.[211] In other words, the material nature of substances is a presupposition of all understanding, because without it there would be no sensation of external objects and all knowledge is based on experience. The idea that a thing could be understood as separate from its material conditions is absurd. In short, where Hobbes breaks with a tradition is in displacing intellect with imagination and adding a verbal emphasis to the imagination.

The displacement of intellect is not just a psychological and epistemological transition, but equally a metaphysical one. Hobbes considers implausible the cornerstones of Aristotle's and Aquinas's philosophical systems, namely immaterial reality and intellect. The first one, because the whole universe, not only the earth, as Hobbes points out, is corporeal, that is, consists of bodies.[212] The second one, because to explain intellect, that is, the process of understanding as a process where 'the thing Understood sendeth forth *intelligible species*, that is, an *intelligible being seen*; which comming into the Understanding, makes us Understand', is nothing but 'insignificant Speech', for the use of the five senses and some common sense is enough.[213]

When moving from the specific point of reference to the broader comparisons, things become more complicated. It is tempting to say that Hobbes more or less consciously absorbed some of the ideas introduced in the body of this chapter, but this does not sound convincing. Nevertheless, I believe that a short summative comparison between Hobbes and the views that preceded him is meaningful – though it needs to be taken as tentative and heuristic, not factual. It makes sense not only in that it provides tools to piece together Hobbes's at times scattered analysis and his lexicon of imagination, but above all because it shows how wide his philosophical enterprise is: he tries to establish a mechanistic-materialistic philosophical system which can explain the wide variety of human thought.

In his enterprise, Hobbes adopts as a general framework the division of types of imagination into psychological, epistemic, aesthetic, and mantic aspects that is derived from Plato. His understanding of imagination as the capacity of mind is from Aristotle on two particular points: as a capacity of mind, imagination is a mediator, and as a mental state, it has a number of different perverted manifestations, which have in common the absence or obscurity of an object of sensation. Christianity, along with Plato, brings to Hobbes's analysis a sense of doubt toward imagination; Augustine introduces a distinctively subjective element, whereas the theory of eloquence and Renaissance literary criticism can be seen to bring in the dimension of language, the important vehicle of imagination, as well as a peculiar civic pedagogy of poetry. Another important

[211] For a similar reading of Hobbes, see Leijenhorst 2002, 93-5.

[212] *Leviathan* XLVI, 371 and XXXIV, 207.

[213] *Leviathan* I, 4 and III, 11. Cf. *Leviathan* II, 8. It has been suggested that Hobbes shares this doctrine with the Renaissance thinker Pomponazzi. See Schuhmann 1988, 345. It must be added that Hobbes is here rejecting just one of the explanations of intellect.

constituent is the physiological theory of mind, which was a starting point already in some scholastic views, but which was developed especially by the 16th century Italian natural philosophers like Telesio. The two views that appear to have interesting, if also historically speaking loose, similarities with Hobbes are the Stoic theory and its conception of *lekton*, that is, the propositional nature of imagination, and the Neoplatonist reflection of imagination and geometry. In brief, the tradition of philosophy offers a pedigree to most of aspects of Hobbes's theory of imagination, but it is the task of a more historically orientated study to prove, whether such points of connection really exist. With this conclusion, we may proceed to Hobbes's lexicon of imagination.

Hobbes uses a range of terms when discussing imagination. The core term, 'imagination', is misleading in the sense that it refers to the states of mind generated by visual sensations,[214] whereas imagination, properly speaking, is any kind of sensory appearance. The term imagination can still be used if we remember that 'all phantasms are not images'.[215] The Greek-based term 'fancy' has the more extensive and correct meaning that covers all five senses and emphasises the appearing nature of imaginations. The terms appearance and seeming are synonyms of fancy. This conception of imagination bears a resemblance to the Stoic notion of *phantasia*, but it needs to be complemented with an argument that shows that Hobbes also considered sensation to be a mode of *phantasia*.[216] An argument can be built upon Hobbes's definitions of sense and imagination.

In physical terms, sense 'is some internal motion in the sentient, generated by some internal motion of the parts of the object, and propagated through all the media to the innermost part of the organ'.[217] Imagination is a continuation of this motion in a sentient's body. Hobbes adopts the language of the new physics to describe the decaying or hindered nature of imagination and explains the whole process of becoming aware as a

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[214] *Leviathan* II, 5; *Concerning Body* IV.25.7, 397. The Latin rootwords are *imaginari* and *imago*, the latter having several telling meanings like image, appearance, statue, idea, echo, ghost, and phantom. That Hobbes consistently made this claim is puzzling if we remember his interest in optics and vision. In *De Homine*, for example, the analysis of vision takes up a substantial part of the book. Hobbes's keen interest in optics should not mislead us, however. Firstly, optics was one of the most vital sciences of the times, something in which every progressive mind should be interested. Secondly, the physiology of vision and the optical studies related to it can be seen to be a part of Hobbes's theory of perception.

[215] *Concerning Body* IV.25.7, 396. Scholars tend to forget this and discuss Hobbes's account of sense in terms of images and pictures. See, for example, Peters, 1967, 77; Herbert, 1989, 48 and 73; and Skinner 1996, 364. A particularly mistaken view is given by White 1990, Chapter 2 (especially pages 17 and 27). Martinich (1995, 141) comments on the pictorial reading as follows: 'Although ideas are usually thought of by Hobbes as iconic or pictorial, in fact for him each sense has its own kind of idea'. Of the passages Martinich refers to (*Concerning Body* I.7.3, 95 and IV.25.2, 389-391 and *Leviathan* IV, 16), only the latter two discuss the subject, strictly taken, and only the last one along the lines that Martinich speaks of. What Hobbes, however, says in the passage in *Leviathan*, is that sight, sound and so on are 'names of fancies'. Therefore even this view is imprecise, because all the conceptions of the mind *are* similar (i.e., matter in motion); we merely *call* them by different names.

[216] Leijenhorst's (2002, 93-94) discussion is useful here.

[217] *Concerning Body* IV.25.2, 390.

chain of motions that enter a body through the sense organs, but meet there the friction of the internal parts of the human body and this friction hinders motion and causes the original sensation to weaken. That sensations decay is not necessarily the same thing as their hindering. By decaying, Hobbes refers to the idea that our sense organs, which are perpetually 'moved by other present objects', cause new sensations and thereby make the recent imaginations 'less predominant'.[218] What is somewhat problematic is the distinction between sense and imagination that arises from the physical, mechanistic description of them, namely: when does exactly the motion change so that we are able to call it imagination? How much hindrance and by what does it take to mould sensation to imagination? How decayed does it need to be? In Chapter III I will offer some insights to these questions.

Hobbes's philosophical definitions express the connection between sense and imagination more clearly. 'Sense in all cases,' Hobbes writes, 'is nothing els but originall fancy' and imagination 'nothing but *decaying sense*'.[219] The criterion to distinguish sense from imagination is that in sensing and sense perception the object is present,[220] but that sense is 'but an originall fancy' seems to point to the reading of sensation as something appearing, not something that is immediately and directly present to a person who perceives, but more like the person's subjective impression of something.

Hobbes's classification of different contents of mind gives support for the above claim that sense is not as central in Hobbes's philosophical psychology as has been thought of or at least that if we are to give a more coherent view of the mind, imagination is a more powerful explanatory concept. At its broadest, imagination as a mental state refers to the conceptions of the mind (or simply: thoughts)[221], which Hobbes divides into three major classes: the original fancies (sensations properly speaking), the decaying fancies (memories, simple imaginations, some compounded imaginations, and dreams), and the fictive fancies (some compounded imaginations, visions, and after-, and ghost images)[222]. Hobbes also uses the term 'idea' when he discusses conceptions of the mind in general, but this is marginal.[223] Thus, Hobbes uses a family of terms to describe

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[218] *Concerning Body* IV.25.7, 396. It is, however, worth mentioning that the clarity, distinctness, and stableness of a sensation are directly proportional to the duration of the sensation. See *Correspondence* Letter 12, 22-23.

[219] *Leviathan* I, 4 and II, 5. Cf. *Concerning Body*, IV.25.7, 396 and *Critique du 'De Mundo'* XXVII.19, 326-328 and XXX.4-7, 350-351. The discussion in Chapter I of *Decameron Physiologicum* (*EW*, VII, 71-81) is also helpful.

[221] 'Mental' is used here in general, non-philosophic sense as something referring to the activities of mind. In Hobbes, of course, all mental states are material states.

[222] *Elements* III.1-5, 27-29. Cf. *Leviathan* I-II and *Concerning Body* IV.25.2-9.

[223] It has been proposed that Hobbes advises using fancy instead of phantasm, and abandoning the term 'idea'. See Sacksteder 1978, 42-44. The argument seems to rest on the assumption that Hobbes seeks to restore the meanings of original Greek philosophical vocabulary so that they correspond with the English of his own age. This is rather odd argument in view the above short survey of the two major Greek terms and their derivatives. In the light of this, the link between fancy and idea is quite clear, for

the motions of the mind, but so that this family has a common core: the motions of mind are *phantasiai*, that is, appearances or representations of external objects.

The faculty of imagination is to Hobbes what Kant later called imagination as a reproductive capacity, that is, 'a power of exhibiting it [i.e. imagination] in a derivative way, but bringing back to mind an empirical intuition we have previously had'.[224] This is also the conception of imagination that we find, on one hand, from Aristotle and Aquinas, and on other hand, from Hume and his account that ideas are copies of our impressions (the 'Copy Principle').[225] Imagination, however is also, in Kant's terminology, a productive capacity, which refers to the combining capacity of imagination. Lastly, in this thesis I hope to succeed in putting forward a view that imagination in Hobbes has also, in Kant's terminology, a creative aspect. That is to say, imagination is 'a power of exhibiting an object originally and so prior to experience'.[226] Naturally, the argument begins from Hobbes's complex view of the human mind.

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both refer to something appearing and, secondly, to the likeness between the object of the perception and the conception of it in the mind.

[224] Kant 1974, 44-45. Cf. 1911, 77-79.

[225] Hume 1978, Part I. The expression 'Copy Principle' is from Garret (1997, Chapter 2). To Hobbes, however, all our impressions and, consequently, all ideas are caused by bodies. They are (local) motion within the inner organs of our body. On the possible relationship between Hobbes and Hume, see Russell 1985, 52 and 61 note 30. Hampton (1986, 19-22) also discusses some similarities and dissimilarities between Hobbes's and Hume's theories of human nature.

[226] Kant, 1974, 44-5. Cf. Kant 1911, 85-86.

III HOBBES'S PHILOSOPHICAL PSYCHOLOGY

The body of *De Cive* starts with the following classification: 'NATURÆ humanæ facultates ad quatuor genera reduci possunt, Vim corpoream, Experientiam, Rationem, Affectum.'[227] These (powers of body, experience, reason, and passions) will form the principal topic of this and the following chapter. The central idea of these chapters is simple. Imagination has three principal roles in Hobbes's theory of human nature: it consolidates, motivates, and explicates the mind and its various workings.

The chapter in hand and the one following it form a unity. The organising principle comes from the distinction between mental and verbal imagination. As is well known, Hobbes put great emphasis on our ability to use language. It is not even far-fetched to suggest that language is a part of human nature, for this is what Hobbes in many places of his *oeuvre* claims.[228] Language does not merely enable sophisticated forms of human thinking, such as the arts and sciences, but also serves as a tool for introspection.[229] In the next chapter I will put forward the idea that Hobbes himself employs this view in his writings on human nature. It is not, however, a matter of course that this capacity is either natural or artificial. In order to clarify the distinction, we need to study in detail what Hobbes says about basic operations of the mind.

The chapter in hand follows a further distinction: a common one, but articulated by Hobbes as the cognitive and motive powers of the mind. The cognitive refers to functions of the mind related to the processing of (sense-)data, whereas motivation is related to deliberation and action. Sense, for example, is the source of knowledge, memory a storage (or as Hobbes says 'a register') of empirical knowledge, and dreams and visions represent distortions in the cognitive process. The distinction between thinking and acting is not of course clear-cut, quite the opposite. Passions, which are the basis of our motivation, also have an impact on cognitive processes. What remains sure is that imagination plays a role in both cognition and motivation.

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[227] *De Cive* I.I, 89.

[228] See, for instance, *Elements* V.1-2, 34-35; *Leviathan* II, 8 and IV, 13; and *De Homine* X.1.

[229] For a view that misses not only this dimension in Hobbes's thought, but his theory of sensation as sensation of our inner states, see McCracken 1998 (the section on Hobbes and especially page 821). That Hobbes does not make a distinction between an inner and an outer man, like, say, Augustine, or name a specific capacity for introspection, like Locke (1975, 105-106) does, is not, in my opinion, sufficient to support McCracken's conclusion. On introspection, see *Leviathan* 'Introduction', 2.

COGNITION

As the end of Chapter II showed, the basic distinction Hobbes draws when discussing imagination is between imagination as a state of mind and as a capacity of mind. This division is also present in his theory of human nature, though here it is articulated a little differently: there are, on the one hand, the basic constituents of mental discourse, that is, phantasms, and, on the other hand, the various ways (what I will call, conceivability) how the mind becomes aware of reality.[230]

In general, Hobbes calls the natural activity of the mind 'mental discourse' and gives two principal descriptions of it: physical and philosophical.[231] The physical explanation says that mental discourse is internal motion in a sentient caused by an external object. It has a certain course, that is, it enters a sentient, travels to the brain and continues to the heart where it meets a counterpressure. The core idea is simple: there is nothing but matter in motion. Hobbes, however, speaks of the activity of the mind also in other terms, for example, that sense is original fancy, not, say, that sense is the motion in the internal parts of body.[232] And it is this kind of vocabulary that seems to prevail. For instance, in *Concerning Body* Hobbes writes: '[t]he object is the thing received; and it is more accurately said, that we see the sun, than that we see the light'.[233]

When we come to Hobbes's philosophical (or, psychological) description of mental discourse, it can be called a common sense view, but only if two things are kept in mind. No matter that Hobbes speaks in terms of everyday language, the fundamental nature of reality is matter in motion. Secondly, though this is a common sense view, it is not a naive one. Hobbes's definition of what is the object of sense (it is the appearance of an external object, not the external object) excludes this possibility.

There are two critical aims in the two sections that follow. The first is to show that a certain adoption of the two-level theory of mind leads to a misunderstanding of Hobbes's philosophical psychology. Though Hobbes maintains that there is nothing but matter in motion, the way in which he analyses various phenomena of mind does not necessarily have a direct point of contact with the material basis of the mind. Similarly, attempts to reduce his theory of human nature to materialistic processes are not necessarily wrong, but still miss a fascinating layer of his philosophical psychology. The second critical aim is to show how Hobbes's theory of sense has dominated the understanding of his theory of human nature. Although it is important, sense is a

[230] On term 'conceivability', see the section 'Conceivability and Hobbes's theory of signs') below.

[231] This distinction is present in both the cognitive and the motive part of Hobbes's theory of human nature. Secondly, as becomes evident later, there is a third layer in Hobbes's analysis of mind, namely physiological, but this is relevant mainly in his theory of sensation. Thirdly, in what follows I shall use the two terms, sensation and perception, interchangeably.

[232] *Leviathan* I, 4 and III, 8. Cf. *Concerning Body* IV.25.2, 391 and IV.25.8, 399.

[233] *Concerning Body* IV.25.3, 391.

prerequisite of thinking and is insufficient when we try to understand how human mind and human nature work.[234] This is not to belittle how Hobbes himself considered his scientific project,[235] but more an attempt to understand the correct meaning and aim of his project.

The structural reason for studying forms of conceivability and the nature of sense is to show the foundations of my argument in the following chapter. It is through a certain form of imagination, namely understanding, that we are able to explain how pre-linguistic thinking is possible. By this is not meant the obvious, that is, that we need to write down or speak out our ideas, but that verbal discourse imposes an order on our mental discourse and in this sense the capability to use language is inseparable from human nature. If my reading of Hobbes is plausible, thinking without language is possible, but sophisticated forms of thinking always require language.

The other side of the coin, motivation, also calls for some preliminary remarks. Firstly, when we employ the distinction between the cognitive and motive, the latter qualification can have at least two meanings. The first refers to the idea that our basic mental motions are instinctual (natural motivation). The other meaning of motivation refers to the idea that we are able to control our thinking by controlling our passions (artificial motivation). Secondly, to specify the notion of natural motivation, the basic mechanism of sense appears to contain some kind of a primitive, emotive judgement. This idea is, however, developed by Hobbes into a full-fledged form of emotive judgement, which he calls deliberation. It then seems that Hobbes considers desires or passions not only irrational or uncontrollable, but equally a constituents of reflection. Thirdly, passions form a class of sensations that go well with Hobbes's idea that perception is primarily perception of inner states of the sentient.[236] Lastly, and most importantly, Hobbes suggests that the basic dynamics of the mind are both initiated and guided by passions. Though it may appear factitious to treat the motive and cognitive aspects of human nature separately, I have chosen to follow the original order set down by Hobbes.

Before entering into a more detailed discussion, three central principles of Hobbes's theory of the human mind need to be introduced. According to the first, all the activity of the mind is the motion caused by bodies (the mechanism principle).[237] The second says that all the contents of the mind are corporeal states within a sentient being,

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[234] Though the extension of the latter is more broad than the extension of the former, in what follows the terms 'mind' and 'nature' are used interchangeably. Mind refers primarily to the psychological contents and operations, whereas nature may include a view of what is man's essence.

[235] In 'The Prose Life' (*Elements*, 252-253), Hobbes writes that his intellectual awakening was prompted by the question: 'what might a sense be ?' to which none of his contemporaries could give a satisfactory answer. Recently it has been claimed (Jesseph 2004) that Hobbes's ideas on this question bear a close resemblance to those of Galileo.

[236] This is put most clearly in *Concerning Body* IV.25.12, 406 ('But there is another kind of sense...')

[237] *Leviathan* II, 5;III, 10-11;IV, 17;V, 18;and VIII, 32-34.

which itself is a composition of bodies (the materialism principle).[238] The third principle articulates Hobbes's empiricism: all the contents of the mind are based on sense-experience (the empiricism principle).[239] In the pages that follow, I shall seek to show two things: that of the principles the first and the second bear a metaphysical nuance, while the third is the most controversial of the three. The second claim is that each of the three principles relates to a specific part of Hobbes's theory of sense.

NATURAL COGNITION

To Hobbes, cognition is a two-stage process: we sense something and then process this information. Hobbes's idea of cognition seems to be an input-output-model, but in this section I shall try to show that the opposite is the case. Hobbes's conception of how we become aware of reality is not as simple as one would think on the basis of his hailed empiricism and materialism. Though the developed forms of human thinking require the acquisition of language, it does not follow that the pre-linguistic forms of conceivability are simple.

Hobbes's conception of sense has been criticised at least from three points of view. First, it is generally acknowledged that sense (or 'apparition') is central to Hobbes's philosophy in many ways, but then again it has been claimed that his theory is not sophisticated enough.[240] It is true that Hobbes's analyses, say in *Leviathan* and *Elements of Law*, are short and cursory, but these are better taken as a part of Hobbes's theory of sense, which can be divided into three layers: physical, physiological, and psychological.[241] Second, there is scope for a more plausible critique of Hobbes's theory of sense, namely that his conception of sense is not powerful enough to explain the variety of the functions of the mind. But then again, this is not necessarily what Hobbes claims. The third critique of Hobbes's conception of sense is perhaps the most serious,

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[238] *Leviathan* I, 3; *Elements* II, especially articles 2-5, 22-3; and *Concerning Body* II.7.1, 92 and IV.25.1-2, 388-391. On Hobbes's theory of sensation, see Thorpe 1940, 80-82; Peters 1967, 97-104; Sorell 1986, Chapters VI and VII; Leshen 1985, 429-437; Herbert 1989, 63-72; Tuck 1988, 11-42; Gert 1996, 157-159; and Hatfield 1998, 972-975.

[239] *Elements* II.1-2, 22-23; *Leviathan* I, 3. Hobbes is positive that even embryos can sense something and that the mind starts to form in the womb (see, for example, *Concerning Body* IV.25.12, 407; compare, however, *Decameron Physiologicum*, 83). In modern terms, Hobbes is a concept-empiricist. See *The Cambridge Dictionary of Philosophy*, 262-263.

[240] Peters 1967, Chapter IV (especially pages 96 and 102); Sorell 1986, 82-87; Robertson 1993, 124-126; and Hatfield 1998, 973**.** McNeilly (1968, 31) goes so far as to claim that the Chapters I-III of *Leviathan* have only an instrumental value

[241] This kind of solution is not extraordinary. Quite a number of studies have suggested that Hobbes had various ways to explain the processes of nature. For two illuminating interpretations, see Brandt 1928, Chapter X, especially 346, and Leijenhorst 2002, Chapter 2 and Chapter 3, section 1. On how the physical and the physiological were understood in the 17th century, see Ariew and Gabbey 1998, 427-428.

namely that he does not explicate his basic claim: sensation is motion.[242] All three of the critiques are discussed during the course of this thesis.

All the explanations of sense follow a pattern where sense is explained to be a two-phase process, which consists of the part in which our sense organs receive a material impulse or pressure produced by an external object and of the part in which the material impulse moves in a sentient being, where it meets two kinds of resistance, that of the brain and that of the heart.[243] The end-product of the process, say, a conception of a piece of wood in the mind, is called a sensation, which appears as an external object, but not understood simply as a replica of an external object in the mind, but more like something which arises from the interaction of an external object and the mind.

In terms of physics, sensation is motion consisting of the smallest possible units, endeavours (Lat. *conatus*).[244] Endeavour, the basic unit of motion, Hobbes defines as follows: '*motion made in less space and time than can be given ;* that is, *less than can be determined or assigned by exposition or number ;* that is, *motion made through the length of a point, and in an instant or point of time.*'[245] It has been proposed that endeavour is both a purely theoretical and a relative notion.[246] We proceed from the latter because the analysis of the relativity of endeavour gives one reason to doubt its theoretical nature.

The relativity of endeavour may mean two things. First, it may mean that endeavour is determined by the capabilities of an observer. The latter is a platitude: a person with good eyesight sees things more clearly than a person with poor eyesight. The variations in perceptive capabilities should not however be confused with what subjective qualities mean in Hobbes's theory of sensation. Though our sensation is tied to the conditions of sensation, say, in dim light objects appear different than in bright light, from this it does not follow that an object is really different, only that our perceptions of it are. Another example could be colour blindness. But the case of endeavour is different, and the reason is simple. Endeavour is not like colour, but concerns the primary quality of motion. There is then a plausible reason to doubt that this is the sense in which endeavour is relative.

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[242] James 1997, 131. Cf. Tuck 1993, 299 and 302.

[243] To Hobbes, the sentient consists of not only the sense organs, but also the nerves, brain, arteries and heart. See *Concerning Body* IV.25.4, 392-393 and *Correspondence* Letter 21, 37-8.

[244] The origins of the concept are twofold, physico-mathematical and psychological. As a notion of physics, endeavour bears close a resemblance to the mathematical notion of the infinitesimal or indivisible. The method of indivisibles was a topic of vivid discussion during the first half of the 17th century, pioneering work being Bonaventura Cavalieri's *Geometria indivisibilibus continuorum nova quadam ratione promota* (1635). See also the note 440.

[245] *Concerning Body* III.15.2, 206.

[246] See (respectively) Gert (1996, 159-160) and Martinich (1995, 105-106). For an opposing view concerning the first claim, see Barnouw 1992, 399-400.

Another reading of the relativity of endeavour seems more convincing. Here endeavour is relative in the sense that the unit of endeavour is determined by what is taken to be the smallest unit of measuring (for instance, a millimetre). Because we do not have certain knowledge of natural objects, our ways of measuring always remain indefinite. But, again, it does not follow that we are able to change the criterion arbitrarily. The criterion of endeavour is always tied to the best possible knowledge of the natural world, not to the system of measurement. The unit of endeavour changes whenever our knowledge, not the conceptual system, changes. Therefore this is not the question of yards or feets, but more like the question of atoms and quarks. One implication of the argument is that our unit of endeavour changes when our empirical knowledge changes. To summarise, whether or not endeavour is a purely theoretical and relative notion, seems to depend on how we read the word 'can' which appears in the above cited definition of endeavour. The reading that defends the theory-nature and relativity of endeavour is based on the idea of 'can' as a convention, that is, we agree what will define endeavour in each case; in some cases it is the ability of a half-blind person to see, but at times it is the visual acuity attained by the latest electron microscope. This line of thinking may apply to Hobbes's idea of what is good and evil in the state of nature, or to 'points of the *Small Moralls*',[247] but is unconvincing when it comes to the basic structure of reality. A realistic reading of 'can' refers to endeavour as something that can be measured or observed in the best possible conditions and that has gone through critical and rational reflection, and that endeavour is relative in this qualified sense.

The physical description of sense which complies with both the mechanism and the materialism principles and describes what happens on the level of bodies and motion, has a specific role for Hobbes. Put in terms of his metaphysical doctrine, it gives an objective explanation of what perception is. It is objective in the sense that it explains the phenomenon in proper terms, namely in terms of bodies and motion. It has however a twist that needs to be further explored.

As suggested in the introductory section, the physical level of Hobbes's theory of human nature is not necessarily of primary importance. This is clear in the case in hand here. Hobbes explains sense in terms of bodies and motion, because he has reasons, coming from his metaphysics, to believe that these explanatory factors are plausible. Hobbes's line of thought seems to be the following: since the rivalling theories on what reality consists of and what principles govern it are not plausible in the light of the latest scientific discoveries, his explanation is better than rivalling explanations. In many places, he transposes this line of argument to his psychological discussion. This happens, for instance, when he is criticising the scholastic theory of sense at the end of Chapter I of *Leviathan*. Hobbes's treatment of magnetism is also valuable here. He says that the

[247] *Leviathan* XI, 47.

causes of magnetism are yet unknown, but 'whensoever it shall be known, it will be found to be a motion of body'.[248] The physical explanation of sense is based on the same conviction that all the phenomena of the world are fundamentally matter in motion. Its purpose is to give an objective foundation for Hobbes's theory of sense, but it is not a comprehensive explanation of what sense is and how it works. For this two other layers of Hobbes's analysis of sense need to be discussed.

The physiological account, which appears in Chapter XXV of *Concerning Body*[249] is more detailed than the physical account. The physiological account is not only interesting as such; it also tells us something about Hobbes's relationship to anatomy.

A crude picture of Hobbes emphasises the "nakedness" of his view of human nature and with certain provisos, this interpretation makes sense. Hobbes's anti-essentialist view of man is based on naturalistic psychology, but a further question can be articulated as follows: is the physiological explanation of sense a theory of the animal or human psyche?

A common view suggests that Hobbes's ideas in psychology are based on the human anatomy. Furthermore – though Hobbes at one point momentarily indicated the opposite[250] – we have reason to believe that he was familiar with the medicine of the 16th and 17th centuries. He was an acquaintance of William Harvey, who developed the modern theory of blood-circulation, had studied some of the central works of medicine, and had even acquired some practical experience.[251] This standard view requires revising.

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[248] *Concerning Body* IV.25.4, 430.

[249] This should not be mixed with the physical analysis of sound, colour and other such qualities that appear later in *Concerning Body*.

[250] Aubrey (*Brief Lives*, 240) reports that when Hobbes was sick ca. 1668 'he had rather have the advice, or take physic from an experienced old woman, that had been at many sick people's bedsides, than from the learnedest but unexperienced physician'.

[251] Hobbes himself mentions Harvey in *Concerning Body* ("Epistle Dedicatory", vii and IV.25.12, 407). Aubrey (*Brief Lives*, 236) reports that Hobbes performed dissections in Paris with William Petty (1623-1687), natural philosopher and administrator in Ireland, during the 1640s and Malcolm proposes (2002, 320, he leans on Keynes 1978) that Hobbes and Harvey dissected a deer. Our knowledge of how much Hobbes really knew about modern medicine is slightly restricted. It is safe to say that he was familiar with Harvey's principal works, *Exercitatio anatomica de motu cordis et sanguinis in animalibus* (1628, but Hobbes could have used *Exercitatio anatomica de circulatione sanguinis* from 1649) and *Exercitationes de generatione animalium* (1651), and at least some of the studies of Andreas Vesalius (1514-1564), the Belgian anatomist, who – together with Leonardo da Vinci (1452-1519) – contributed to the development of modern anatomy. Vesalius's *De humani corporis fabrica* (1543) was widely known in 16th century Europe (Of this, see Karasszon, 1988 , 238-239 and 249-251). *Chatsworth Catalogue* (respectively II, 280 and IV, 82) gives one work of Harvey, *De Motu cordis et sanguis in animalibus anatomica exercitatio, cum refutationibus Ænguli Parisani et Jacobi Primirosi* (1639) and one by Vesalius: *Anatomes totius, ære insculpta delineatio, cui addita est epitome de corporis humani fabrica* (1565) and two general works on veterinary medicine. Both are by Johannes Ruellio and both titled *Veteneriae Medicine* (1530 and 1537). Aubrey (*Brief Lives*, 236) confirms that Hobbes studied Vesalius while staying in Paris.

I agree with Brandt that the physiological explanation concerns animal psyche[252] and that another account of sense is needed to explain the peculiarities of human mind. There is however a shortcoming in Brandt's analysis. It does not address the question what could be the sources of Hobbes's physiological account of sense.

The sources that could indicate the origins of Hobbes's zoological ideas are scarce, even the indirect sources seem to be limited to one and the analysis on the general level hardly leads anywhere. The single indirect source is, as in many other cases, provided by Aubrey, who writes that 'I have heard him say that Aristotle was the worst teacher that ever was, the worst politician and ethic - a country fellow that could live in the world as good; but his *Rhetorique* and *Discourse of Animals* was rare.'[253] From this it can be concluded that Hobbes was familiar with Aristotle's works on animals, though it is not clear exactly which work or works he knew.[254] Luckily this does not make a significant difference, because both of the major works, *Historiae Animalium* and *De Partibus Animalium*, contain the same basic anatomy of animals. There seems to be some similarities between Aristotle's and Hobbes's accounts of animal sensation, for example, that the central organ of sense is the heart,[255] but this is does not prove much,[256] and we need to consult more general evidence.

The rationality of animals and their similarity to human beings was a lively dispute in the 16th century. An extreme case was Hierome Rorarius (1485-1556), who in his *Quod animalia bruta ratione utantur melius homine* (1547) made the claim that animals do not only have reason and language but that they reason better than humans. Rorarius's work was widely known,[257] but we do not have any evidence that Hobbes had

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[252] The argument rests, to some extent, in the division of Hobbes's work on the elements of philosophy (*De Corpore*, *De Homine*, *and De Cive*). Brandt (1928, 347-355) ponders this when trying to determine the status of part IV of *De Corpore* and, more broadly, the consistency of Hobbes's philosophical system. His argument is a structural one. Locating the physiological analysis of sense to the beginning of part IV of *De Corpore* makes sense only if we read this account as a general explanation of sense in living creatures, and that specific human psychology, which contains the acquisition of language, use of reason, and developed emotions appears in *De Homine*. Secondly, in Hobbes's political treatises, emphasis is naturally on human psychology, but Hobbes maintains the distinction between animal and human psychology. In *Leviathan* the distinction is present, for example, in the notions of understanding (II, 8) and regulated thought (III, 9, see also V, 20).

[253] *Brief Lives* (Clarke), I, 357.

[254] Aristotle's works in this area include: *Historiae Animalium*, *De Generatione et Corruptione*, *De Generatione Animalium*, and *De Partibus Animalium*.

[255] Aristotle speaks of the 'seat of sense' (for example, *De Partibus Animalium* 647a25-35), Hobbes of 'the fountain of all sense' (*Concerning Body* IV.25.4, 392).

[256] Probably Aristotle adopted the pneuma doctrine common in Ancient Greece and especially in Hippocrates, but it was Aristotle who applied this systematically to the study of animals. See Karasszon 1988, 67 and 74.

[257] A useful introduction to the discussion of animal psychology and the epistemic capacities of animals is the article on Rorarius in Bayle's Dictionary (see especially the footnote K). I have consulted the English edition of 1737. The entry on Rorarius is in volume 4: M-R, 900-916. An interesting early

read him. Another contemporary source could be two works by Marin Cureau de la Chambre (1594-1669): *Quelle est la Connoissance des Bestes* and *Traité de la Connoissance des Animaux*.[258] Hobbes could have been aware of Cureau's work through his contacts and stay in Paris 1640s,[259] but more evidence is needed. The conclusion then is that the evidence does not directly support the line of argument introduced, but what I think remains relevant is that the physiological account of sense is an account of sensation in animals, including man, that is, in living creatures, and though Hobbes's medical reflections probably come from sources like Vesalius and Harvey, they might also have been influenced by Aristotle and contemporary writings on animal psychology.

Whether based on human or on living creatures in general or on modern or on ancient sources, Hobbes's physiological account of sense explains primarily the latter part of the sensation process, that is, what happens after the pressure caused by an external object enters into the sentient. Secondly, Hobbes's view could be termed a holistic one; it is not only the organ of the specific sense, say, the eye, that constitutes sensation, but the whole organic network in a sentient. This network includes the organs of sense, the brain, nerves, arteries, and, most importantly, the heart.[260] That the view is holistic becomes clear in the cases where no perception arises. This can happen if a part of a sentient's perceptive network is destroyed or if the motion is 'intercepted between the brain and the heart by the defect of the organ by which the action is propagated'.[261] Two things are salient. The first is that perception requires the operation of the whole network, but especially of the heart. The second is plenism integrated into the view: a break in the relevant sensory network means that no perception arises. The physiological account is then in line with two ideas, Hobbes's refutation of the existence of the vacuum and the materialism principle.

Further on, Hobbes considers the physiology of sensation from two viewpoints. The general analysis describes how the organs of sense consist of 'certain spirits and membranes' and explains in more detail how motion moves in a sentient: 'proceeding from the *pia mater*, involve the brain and all the nerves; also the brain itself, and the

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modern reaction to Bayle and, consequently, to Rorarius are the comments by Leibniz (1998, Part 2, Chapters 10, 11, 14, and 15). For recent studies of the subject, see Harrison 1998 and Serjeantson 2001.

[258] Cureau de la Chambre, 1645 and 1648. The latter was originally written in French and published in Paris in 1647, but there is an early translation into English (Cureau de la Chambre 1657). *Traité de la connaisance des Animaux.* was a reply to Pierre Chanet (1603-166?), who had criticised Cureau de la Chambre in his 'Infinity and Knowledge of Beasts'. The work of Chanet that the English translation (8 and 13) refers to could be *De l'instinct et la connoisance des animaux. Avec l'examen de ce que Monsieur Chambre a escrit sur cette matier*. Chanet's strategy was to use the notion of infinity, which he took to be impossible for brutes to have, to show that animals cannot reason and acquire knowledge. On Cureau de la Chambre, see Darmon 1985.

[259] The book is not included in the *Chatsworth Catalogue* (I, 448), which lists only one work by Cureau de la Chambre (1665), a treatise on the flooding of the Nile.

[260] *Concerning Body* IV.25.4

[261] *Concerning Body* IV.25.4, 393.

arteries which are in the brain; and such other parts, as being stirred, the heart also, which is the fountain of all sense, is stirred together with them'.[262] Here Hobbes rearticulates the view of sensation as stimuli propagated by motion or pressure caused by an external body.

In his major works, Hobbes offers only one complete physiological analysis of sense, and this deals with sight.[263] It is not necessary to repeat in detail Hobbes's description of the functioning of sight here, and it is sufficient to consider just two ideas that he mentions in the middle of the analysis. The first says that 'sense is nothing else but the action of objects propagated to the furthest part of the organ', that is sense is nothing but motion. The second idea is more complicated. Hobbes takes it as evident 'that animal spirits are nothing but vital spirits purified by the heart'.[264] This is a central point, because with this idea Hobbes gives an explicit account of the relationship of the two principal bodily motions.

The tenth article of Chapter 25 of *Concerning Body* illustrates the turning point in Hobbes's analyses of sense. The article opens with physiological reflections, but changes to a more familiar account of sense and to what is usually considered Hobbes's theory of sensation.[265] This analysis is noteworthy for a number of reasons. It introduces the distinctively human psychology with a reflective element. Secondly, it reintroduces[266] Hobbes's attempt to apply his own theory of sense to the process of sensation. Thirdly,

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[262] *Concerning Body* IV.25.4, 392.

[263] The most complete is *Concerning Body* IV.25.10. Cf. *Elements* II.7, 25

[264] For both ideas, see *Concerning Body* IV.25.10, 403. The notion of 'spirit' was central in 16th century theories of the soul which emphasised the physiological explanation of the functioning of the soul. Of these, see Park 1982, 468-469. Hobbes can be considered as continuing this development, especially if we take seriously the possible connection between him and some 16th century Italian natural philosophers, like Telesio. Of this, see Leijenhorst 2002, 11; 63-71; and 97-100. The notion was central also among Hobbes's contemporary. Descartes (1984, Vol. III, 224-226) gives a detailed analysis of spirits in a letter to Vorstius.

[265] That is to say, though the physical and the physiological accounts are, occasionally, mentioned, the psychological (or philosophical) account is the principal subject in the secondary literature. This is particularly well presented in Gert (1996, 157, cf. 158 ('Hobbes has no great interest ...')) who writes: 'In what follows I shall discuss only Hobbes's philosophical view concerning psychological topics, not his empirical speculations. With regard to the matter of sense, this is explicitly in accordance with Hobbes's view of philosophy'. For some variations of this thesis, see Robertson (1993, 123); Peters (1967, Chapter 3); and Tuck (1989, 40-41). It is true, first, that various interpretations do not totally reject the physical and physiological accounts, but they do concentrate on the philosophical account. For example, Peters (1967, 76) considers Hobbes the great advocate of mechanistic philosophy, whereas Tuck reads Hobbes's theory of sense as belonging to the tradition of scepticism. Second, there are plenty of alternative views. Though the foundation of his understanding of Hobbes's early views on sensation (that is, the authenticity of *Short Tract*) is a matter of further discussion, Leijenhorst (2002, Chapter 2) probably offers the most balanced view. Herbert (1989, Chapter 2) also offers some insights, but his work suffers from a tendency to read Hobbes's philosophy as a kind of proto-phenomenology.

[266] 'Reintroduces' because the analysis of sense is the subject of the opening articles of Chapter 25 of *Concerning Body*.

the article discusses the central and controversial notion of phantasm. However, the analysis is only introduced here, and Hobbes in the next article concludes:

> [T]his may suffice to be said in general concerning sense made by the reaction of the organ. For, as for the place of the image, the deceptions of sight, and other things of which we have experience in ourselves by sense, seeing they depend for the most part upon the fabric of the eye of man, I shall speak of them then when I come to speak of man.[267]

The passage is an example of Hobbes's multilayered strategy and calls for some comment. First of all, it confirms Brandt's[268] view that there is animal and human psychology in Hobbes – or, if you like, the psychology of natural man and the psychology of artificial man. Secondly, it also closes the naturalistic analysis of sensation, which explains sensation as a reaction of a sense organ and, at the same time, introduces an introspective element of sensation lacking in animals. A way to articulate the shift is to say that here the empiricism principle replaces the mechanism and materialism principles.

In the empirical account, the central notion of *conatus* or endeavour, which was discussed earlier as a notion of (theoretical) physics, re-appears, but this time as a psychological notion.[269] This layer of Hobbes's theory is central. As Barnouw writes, 'The use of *conatus* in mechanics already suggests a metaphorical projection that likens physical motion to voluntary'.[270] That is to say, endeavour also stands for intentional activity of the mind in Hobbes. The metaphorical projection of Hobbes refers to the 'the subtlety and complexity of mental motions'.[271] Barnouw's idea is simple: love, deliberation, *sagacitas*, and other such a operations of the mind are motion, but much more complex than, say, that of a billiard ball. In Chapter I of *Leviathan* Hobbes writes:

> The cause of Sense, is the Externall Body, or Object, which presseth the organ proper to each Sense, either immediately, as in the Tast and Touch, or mediately, as in Seeing, Hearing, and Smelling: which pressure, by the mediation of Nerves, and other strings, and membranes of the body, continued inwards to the Brain, and Heart, causeth there a resistance, or counter-pressure, or endeavour of the heart, to deliver itself: which endeavour because *Outward*, seemeth to be some matter without. And this *seeming*, or *fancy*, is that which men call *Sense*.[272]

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[267] *Concerning Body* IV.25.11, 406.

[268] Brandt 1928, 350.

[269] *Elements* VII.2; *Leviathan* I, 3 and VI, 23.

[270] Barnouw 1992, 400.

[271] Barnouw 1992, 400.

[272] *Leviathan* I, 3.

This summarises some of the issues which have been discussed in detail, but an issue that needs further attention remains, namely how Hobbes explains the development of the cohesion or the unity of the mind. The problem of cohesion brings together many of the themes discussed above: firstly, it gives an account of sense itself; secondly, it explains what happens in the heart; and thirdly, it clarifies the notion of phantasm.

In general, Hobbes's idea of how mental discourse is structured can be explained on the basis of the empiricism principle: through the course of time the number of our sensations grows and is organised into a more or less coherent whole in the mind.[273] The idea is expressed in Chapter III of *Leviathan*: 'But as wee have no Imagination, whereof we have not formerly had Sense, in whole, or in parts; so we have no Transition from one Imagination to another, whereof we have never had the like before in our Senses.'[274] This activity of the mind is based on an axiom of Hobbes's natural philosophy, which he formulates in *Decameron Physiologicum* as follows:

> *B.* My first axiom then shall be this: Two bodies, at the same time, cannot be in one place.
> *A.* That is true: for we number bodies as we fancy them distinct, and distinguish them by their places.[275]

This ontological principle is then applied to Hobbes's theory of cogitation. For example, in *Concerning Body* he writes that 'such is the nature of sense, that it does not permit a man to discern many things at once'.[276] The impression that we do have many ideas in the mind at the same time is partly because thoughts, or phantasms follow each other so quickly, and partly because we have formed composite ideas. Hobbes's philosophical theory of how the mind orders the flow of phantasms is something like the following.

At its most elementary level, an external body does not merely press its image into a sentient, but its conception is also due to the activity of the sentient. The sentient is directed towards objects on the basis of what it finds pleasurable and painful.[277] In more precise terms, the basic function of the rudimentary emotive judgement is to

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[273] *Elements* III.6, 29; *Leviathan* II, 5, III, 9-10. For an attempt to describe this in more detail see *Concerning Body* IV.25.5-6, 393-394. See also what Hobbes says about pleasure and pain in article 12.

[274] *Leviathan* III, 8.

[275] *Decameron Physiologicum*, 85. Cf. *Concerning Body* IV.25.6, 394-395.

[276] *Concerning Body* IV.25.6, 394.

[277] *Concerning Body* IV.25.12, 406; Cf. *Elements* I.4 and 7, 21-22 and *Leviathan* VI, 23. Peters (1967, 98-99) seems to miss this emotive component of sense, whereas Herbert (1989, 66-69 and 71-72), who recognises the component, discusses it predominantly in relation to volition and to action. For a similar view as expressed here, see Barnouw (1992, 401-404), though I do not share his idea that Hobbes's conception of imagination 'lays the foundation for a conception (more Herbartian than Freudian) of a dynamic unconscious' (402). Instead of referring to the unconscious, whether Herbartian or Freudian, the more plausible explanation lies in deficiencies, like in not understanding the basic operations of the mind and in inattentiveness to the quick motions of the mind. Compare to the example of the Roman penny in *Leviathan* (III, 9).

regulate motion within the body. Hobbes depicts pleasure and pain, which proceed 'from continual action from the outermost part of the organ towards the heart', as two regulative operations of motion in a sentient; 'by quickening or slackening, helping or hindering'[278] this motion causes changes in the vital motion. In brief, impressions of objects have concrete consequences in our body. Hobbes characterises this 'another kind of sense' [that is, sense of pleasure and pain, not sight, hearing and so on] in the following fashion: 'as phantasms seem to be without, by the reason of the endeavour outwards, so pleasure and pain, by reason of the endeavour of the organ inwards, seem to be within'.[279] Hobbes's notion of sensation, then, has proved to be a complicated construct. Sensation is not simply a pressure in our cortex, but requires the activity of mind. In addition, the concept of sensation does not refer only to the appearance of an external object in the mind, but also to the introspective sensation, that is, the sensation of various bodily states. Though we are able to distinguish between the two components of sensation, sensation properly speaking consists of both.

To Hobbes, the simple, direct, and correct connection to external objects is not axiomatic,[280] and sense (or, sensation, or perception) is better characterised as an appearance ('original fancy'), which has a certain likeness to that of which it is a copy. This position has a consequence that carries some weight. In *Concerning Body* Hobbes writes: 'The proper phantasm of sight is light; and [...] colour also [...] But the object of sight, properly so called, is neither light or colour, but the body itself which is lucid, or enlightened, or coloured'.[281] To remind, the criterion that distinguished sensation from imagination was that in the former the object is present, whereas in the latter it is not. The problem now is: how are we able to say that an object is present, and not only a fiction of our mind, 'such as is the appearance of your face in a looking glass; such as is a dream; such as is a ghost; such as is a spot before the eye that hath stared upon the sun or fire'?[282]

One way out of this is the plea to our common sense that is embedded in Hobbes's objection to Descartes's dream argument. The objection runs as follows: 'because waking I often observe the absurdity of Dreames, but never dream of the absurdities of my waking Thoughts; I am well satisfied, that being awake, I know I dreame not; though when I dreame, I think my selfe awake'.[283] What Hobbes then

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[278] *Concerning Body* IV.25.12, 406.

[279] *Concerning Body* IV.25.12, 406.

[280] *Elements* II.5, 23-4; *Concerning Body* I.I.3, 4.5 and IV.25.11, 405-406. See also the example of the firebrand that appears in a letter to Sir Charles Cavendish (*Correspondence* Letter 31, 83). The phantasmatic nature of sensations has given room for an interpretation that emphasises the role of scepticism in Hobbes. This interpretation will be discussed in relation to Hobbes's theory of knowledge.

[281] *Concerning Body* IV.25.10, 404.

[282] *Seven Philosophical Problems and Two Propositions of Geometry*, in *EW*, VII, 27.

[283] *Leviathan* II, 6.

suggests, is that we learn by experience to make the distinction between real and fictive sensation. As such the argument is not fully convincing, but there is further support for it in Hobbes.

In *Concerning Body* Hobbes gives the following characterisation of sensation: 'the most admirable ['of all the phenomena or appearances which are near us'] is apparition itself, *τό φαίνεσθαι*; namely, that some natural bodies have in themselves the patterns almost of all things, and others of none at all.'[284] There are a variety of ways to read the passage, but it is safe to say that Hobbes's admiration focuses on the mechanism not on the variety of sensation.

Ambiguity in the passage rests on the phrase 'the patterns of almost of all things'. A way to read this is that bodies carry with them extra-information, which tells a subject how this particular object relates to other objects and what are its essential qualities. Because only sophisticated bodies can sense[285] and more sophisticated bodies communicate, this certainly cannot be true. Taking into account the fact that Hobbes denies explanations that transcend sense experience, for example, the doctrine of intelligible species, as well as teleology in nature (or at least that there can be certain knowledge of this), his referring to patterns must mean something else. In my reading, the argument goes as follows: the mind contains numerous states created by previous experiences that are activated by the appropriate external stimulus.[286] What Hobbes needs to explain is the nature of this activation, and what turns out to be unexpected is that the mechanism of sense, which is the primary candidate for the explanation of activation, is not of much use.

When pondering on the nature of sense, Hobbes makes the following question: 'by what sense shall we take notice of sense?'[287] The answer is memory, or remembrance.[288] Though sensations are temporally prior to memories,[289] Hobbes sees

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[284] *Concerning Body* IV.25.1, 389. For analyses of the passage, see Brandt 1928, 359-360; Peters 1967, 78-80; and Sorell 1986, 82-87.

[285] *Concerning Body* IV.25.5, 393. For discussion of the problems of this position, see Sorell 1986, 74 and Leijenhorst 2002, 97-100.

[286] *Concerning Body* IV.25.5, 393-394.

[287] *Concerning Body* IV.25.1, 389.

[288] Hobbes's terminology varies from text to text. The general mnemonic capacity is called 'memory' in *Leviathan* and 'remembrance' in *Elements*, whereas in *Leviathan* the latter is a developed form of memorising with a conscious aim of bringing something into the mind, which in *Elements* is called 'reminiscence', deriving from the Latin *reminiscentia*. See *Elements* III.6, 29 and IV.5, 32 and *Leviathan* II, 5-6 and III, 10. In *Concerning Body* (IV.25.1, 389) memory is tied to sensing and there is no explicit analysis of its different modes. See, however, also the discussion on good judgement below.
Secondly, in *Elements* Hobbes calls the capacity of remembrance a sixth, internal sense. Though it was not uncommon to name something as a sixth sense, Burton (1927, 137), for instance, mentions that Scaliger considered titillation and Lullius speech to be the sixth sense, this issue needs further commentary.

The reference to the sixth sense seems to be a minor, even insignificant claim and it could be easy to skip it as a mere slip of the pen, but a few similar remarks show that the case might well be the

memories as a part of sensation. A memory, if we follow Hobbes's materialistic psychology, is the specific composition of matter in our body caused by a previous sensation. When I see something and memorise it, the same composition arises in my body as when I first saw it.

A memory, however, has two components: the memory of a thing and the memory of its similarities and dissimilarities with all other things I have experience of,[290] and to memorise is not merely to re-enact the past sensation, but also to compare it with something. Hobbes explains this in more detail in *Concerning Body*:

> For he that thinketh, compareth phantasms that pass, that is, taketh notice of their likeness or unlikeness to one another. And as he that observes readily the likenesses of things of different natures, or that are very remote from one another, is said to have a good fancy; so he is said to have a good judgement, that finds out the unlikenesses or differences of things that are like one another. Now this observation of differences is not perception made by a common organ of sense, distinct from sense or perception properly so called, but is memory of the differences of particular phantasms remaining for some time; as the distinction between hot and lucid, is nothing else but the memory of both of a heating, and of an enlightening object.[291]

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opposite. In the light of his well-known antipathy towards the scholastic philosophy, Hobbes's characterisation sounds unconvincing. The passage however does not hint in this direction, but appears as a genuine statement. A short answer could be the original status of *Elements*. It was a manuscript meant to be circulated among and commented on by contemporary colleagues of Hobbes and then possibly revised and published. This never happened – at least under the same title. However, I believe that there is a more interesting twist related to the issue of Hobbes's intellectual development and to the status of a piece of work that has by some scholars been attributed to Hobbes and which is generally referred to as the 'Short Tract' or 'Little Treatise'. The work contains some clearly Aristotelian features. Assuming that the treatise is by Hobbes and taking into account his later psychology in *Leviathan* and *Concerning Body*, the claim that remembrance is an internal sense could be seen as an indication of Hobbes's gradual distancing himself from the Aristotelian theory of human nature. The weak part of the argument is however the authenticity of 'Short Tract'. It is very likely that it was not written by Hobbes, but by his friend Robert Payne. This does not, however, exclude the possibility that in the 1630s, when Hobbes started to develop his theory of the human mind he started from the Aristotelian theory, which he then rejected and replaced with his own doctrine. Though this is also questionable in the light of some autobiographical evidence, namely that Hobbes despised Aristotelianism as a student in Oxford. See *The Verse Life*, 255.

'Short Tract' was originally identified as the work of Hobbes by Ferdinand Tönnies (1889, xii-xii). Its authenticity was questioned by Richard Tuck (1988, 16-18 and 1993, 295). Recent commentary on the 'Short Tract' includes: Schuhmann, 1995; Raylor, 2001; Leijenhorst 2002, 'Introduction'; and Malcolm, 2002, Chapter 4.

[289] *Elements* III.6, 29. Cf. *Leviathan* III, 10. However see also the counter-example that François Peleau gives and Hobbes's 'reply' to it. Both in *Correspondence* Letter 95, 330 and 332 (Peleau) and Letter 202, 767 (Hobbes).

[290] *Concerning Body* IV.25.1, 389 and IV.25.5, 393.

[291] *Concerning Body* IV.25.8, 399. Cf. *Elements*V, 34-35.

This is the second form of pre-linguistic conceivability, which consists of two operations that Hobbes calls fancy and judgement.[292] It is important to note that this kind of comparison is materialistic. That is to say, a memory is the rise of a specific material composition, which is at the same time distinguished from or connected with something in the mind. For example, two experiences of sunrise, one from yesterday and one in 12th of June 2004.

It is not, then, so much the paucity, but the narrowness that is the problem of Hobbes's account of sense. Though he gives a passable explanation of sense experience and its variety, the foregoing discussion shows[293] that this model is not fully successful when applied to other kinds of conceptions of the mind. It is this range of 'non-paradigmatic sensory experiences',[294] as Schofeld shrewdly puts it, that Hobbes seeks to grasp with the notion of imagination. The notion is also important to Hobbes because it seeks to overcome the problems that his account of sense generates.

IMAGINATION

Imagination as a state of the mind, Hobbes writes in *Concerning Body*, is '*sense decaying*, or *weakened*, by the absence of the object'.[295] Systematically speaking, imaginations can be divided into simple and compound imaginations,[296] and range from uncomplicated imaginings, like an imagination of a piece of wood, to more complex ones, like a chiliagon (a plane figure with a thousand angles) or the figure that appears on the title page of *Leviathan*.[297] When the concept of an object, for instance a horse or a man, is in the mind at once and wholly, an imagination is called simple. When two simple imaginations are combined, we call the result compounded imagination, say, a centaur and a golden mountain,[298] or to continue the train of examples, from the imaginations of two pieces of wood and string it is possible to form the compound imagination of a

[292] *Leviathan* VIII, 33. Outside Hobbes's ideas of style (see, above all, Skinner 1996, 365-372), these operations have not received much attention in the secondary literature. Thorpe (1940, especially 94-96) discusses them at some length and Sorell (1986, 82) briefly analyses judgement, which he sees as a part of sense, which is not a fully correct view. What Hobbes might mean in the passage in question is that the operation of judgement should not be understood as the *sensus communis* as it was in the Aristotelian theory of the mind. Secondly, Hobbes clearly says that the 'observation of differences […] is memory of the differences' and because sense cannot create memory, but is merely its raw material, the difference must be made by memory.

[293] My discussion is indebted to Sorell (see especially 1986, 84).

[294] Schofield 1992, 253.

[295] *Concerning Body* IV.25.7, 396.

[296] *Leviathan* II, 5.

[297] On the chiliagon, see Descartes, II, 50. For a discussion of the title-page of *Leviathan* see Malcolm, 2002, essay 7 and Prokhovnik 1991, 141-5.

[298] The example of the centaur appears, for example, in *Leviathan* II, 5 and that of the golden mountain in *Elements* 3.4, 28 and *Concerning Body* IV.25.9, 399.

cross. Lastly, both as a capacity of the mind and as a mental state, imagination divides into four subspecies, which are memory, dream, vision or apparition, and understanding.[299]

The first issue to deal with is the distinction between simple and compound imaginations. The distinction is a traditional one.[300] There is hardly a thinker who does not make this distinction in one form or another. Differences between Hobbes and, for example, Aquinas, seem to be of minor importance. Nevertheless, there are a number of things that are worth reflecting on.

The first is how we should understand simple imagination. Hobbes's examples refer to the empiricist interpretation, for example, the imagination of a horse is a re-enacted appearance of a sensation of a horse that one has. It can be big or small, black or white, and so on. Simple imaginations are then, mainly, concrete, but since such entities as a chiliagon or the figure on the titlepage of *Leviathan* appear to qualify as simple imaginations, the notion is more complex. Let us look at the mentioned examples in turn.

Aside from concreteness, that is, aside from having a concrete sensation of something, imaginations can also be non-pictorial.[301] Even depicting a chiliagon is possible, though imagining it refers to a slightly different thing than in the case of, say, a cube. The possibility of having an imagination of a chiliagon is based on the fact that we have some similar concrete imagining, by whose help we are able to acquire the imagination of a non-concrete entity. There is nothing mystical in this, as the example of the imagination of Alexandria from Augustine shows. In *De Trinitate*, Augustine explains how it is possible to give a description of Alexandria without ever having actually visited the city. The description is possible on the basis of the experience we have from indirect sources like books, from what other cities are like, and, say, from what kind of a light there is just before sunset, to mention a few possible sources.[302] He goes on to explain that it is even the case that the description can convince people who have actually visited the city. Something similar takes place in the case of a chiliagon. For if we have experience of different figures, like a triangle and an octagon, we can go on to imagine a figure with a thousand angles. The difference between Descartes and Hobbes is, however, that Hobbes takes the imagination to be concrete, not in the sense that we have had a concrete experience of a chiliagon, but in the sense that it is a concrete figure and not an idea of reason.

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[299] *Leviathan* II. This claim is based on the fact that Hobbes discusses all these under the heading 'Of Imagination' in *Leviathan*. As is evident his discussion here bears a resemblance with faculty psychology. For a valuable comparison, see Leijenhorst 2002, Chapter 2.

[300] See, for example, ST I.q12.a2.r.2 and I.q78.a4. Compare with Aquinas, 1952, I.q8.a5.

[301] See Descartes 1984, II, 62 and Malcolm 2002, 177. This is also what Calvino (1988, 83) refers to in his distinction between two kinds of imaginations discussed earlier.

[302] *De Trinitate* 250-251. See also Letter 7, when Augustine speaks of phantasms of supposed things.

The anamorphic picture appearing on the title page of *Leviathan* is a different sort of simple imagination. Firstly, it appears as a compounded imagination, but this is to mix compound in the technical sense in which Hobbes uses it when discussing imaginations, to compound in some more general and loose sense as referring to composition. It is true that the figure consists of a large number of smaller figures composed in a certain manner, but as an anamorphic figure it is a single whole. The figure on the title page is not perhaps the best possible example,[303] but the whole idea of anamorphic pictures is that if one of its constituents is missing, the picture is no longer a whole, that is to say, we do not have a simple imagination anymore.

The point of the two examples above is to show that simple imaginations are not only about goats and cabbages, but may refer to rather complex contents of the mind. The immediate objection to this is that the mentioned kinds of imagination are anything but simple. Quite the opposite, a chiliagon and the figure on the title page of *Leviathan* are complex compounded imaginations. From a particular point of view this appears to be the case, but still the conclusion is wrong. It is true that after the analysis the mentioned entities appear complex, but as real contents of the mind they are undivided. One of Hume's distinctions may help us to see the difference. When analysing perception, Hume defends the unity of the different constituents: 'Put a spot of ink upon paper, fix your eye upon that spot, and retire to such a distance, that at last you lose sight of it; 'tis plain, that the moment before it vanish'd the image or impression was perfectly indivisible'.[304] It is of course possible to distinguish philosophically between the roundness and redness of a figure, but in practice this is impossible, for it is impossible to sense roundness or redness *per se*.

The second and more obvious issue is the nature of compound imaginations. Hobbes's discussion of these has a special tone. In general, compound imaginations are combinations of a number of simultaneously existent simple imaginations and in this sense they are empirical; they are more or less complicated combinations of sensations and memories. Aside from the standard examples of a golden mountain and a centaur, Hobbes gives the example of the fictive compounded imagination: a person may imagine that he or she is 'a *Hercules*, or an *Alexander*', but adds that this 'happeneth often to them that are much taken with reading of Romants'.[305] Though this distinctively human imagination is not that easily resolved with past experiences, what remains evident is that Hobbes considers these kinds of imaginations nonsense. Nevertheless, they have their

[303] The example of the anamorph of Louis XIII is, perhaps, more illuminating. For the picture of the anamorph, see Malcolm 2002, 233.

[304] Hume 1978, 27.

[305] *Leviathan* II, 5. This was a common fear. Robert Boyle, for example, is reported as being afraid to open a romance. For a discussion of the physiology of reading in early modern England, see Johns 1996 (for Boyle, see 145).

role in Hobbes's philosophical psychology, for they are the basis of delusional imagination.

Moving to the specific forms of imagination, Hobbes begins with memory, which he now combines with imagination. Memory operates on things that were perceived or happened in the past and are 'worn out with time'.[306] Memory and memories are then limited not only because they are reproduction(s) of past sensation(s), but also because they have faded.[307] Imagination, though it must have its origin in previous experience, can overcome the bounds of sense and memory and is not in this sense replicating the external world. For example, I can change my original sensation of a piece of wood by imagining that this piece of wood floats in the air. Yet, these phantasms are also decaying, because of the continuous flow of stimuli and corresponding phantasms, which obscure the present imagination 'as the light of the Sun [sense] obscureth the light of the Starres [other conceptions of the mind].'[308]

After analysing imagination and memory, Hobbes moves to dreams and visions, or apparitions.[309] As a capacity, dreaming is the imagination of a sleeper and correspondingly dreams are the imaginings of those who sleep. Though external conditions can affect the quality of dreams, in general dreams are caused by 'the agitation of the inward parts of mans body', that is to say, '[t]he motion when we are awake, beginning at one end, and when we Dream, at another'.[310] Dreams differ from our waking imaginations in that they are, firstly, more distinct than waking imaginations, because in them there are no external stimuli.[311] Secondly, dreams are the reverse of our waking imaginations in two respects: in how imaginations arise and how the causal relations may occur. When awake, imaginations cause bodily reactions, but when in dreaming, bodily changes cause imaginations. Therefore, sleeping against a pillow may cause an imagination of suffocating or that in a dream a pile of ashes is transformed into a piece of wood.

Being subjective (in the sense of belonging to purely inner experience of an individual subject) and incoherent, dreams resemble visions, which demonstrate the most delusive aspect of our non-paradigmatic life of the mind.[312] These can be of various

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[306] *Concerning Body* IV.25.8, 398. Cf. *Elements* III.7-8, 29-30.

[307] For an example that illuminates this see *Elements* (III.7, 29-30). Hobbes was willing to compromise his principles, as the letter to Sir Gervase Clifton shows: 'the image of yo[r] noblenes decayes not in my memory'(*Correspondence* Letter 15, 27).

[308] *Leviathan* II, 5.

[309] I have chosen to use the former term 'vision', because the meaning of 'apparition' is equivocal. In *Leviathan* (II, 6-7) Hobbes puts it into the same category as visions, but, as already mentioned, later in *Concerning Body* (IV.25.1, 389) 'apparition' is used in a different context.

[310] *Leviathan* II, 6.

[311] *Leviathan* II, 6. Cf. *Elements* III.2, 27 and *Concerning Body* IV.XXV.9, 401.

[312] Again this is not a novelty. The connection between vision and imagination goes back to Plato, who discusses visions, especially in *Timaeus*. See *Sophist* 235a-236d, 977-9 and *Timaeus* 71a-72b, 1194-

kinds, but the unifying factor is that they refer to something that is clearly unreal. Ghosts and fairies are the obvious examples, but a golden cross appearing in the sky in the middle of the day is also a vision.[313]

Visions and dreams are close to each other in another way: they are often confused. Hobbes refers to the historical example of Brutus, who on the eve of the Battle of Phillippi is reported by historians to have had a vision, but who in fact had a nightmare.[314] Though Hobbes admits that 'there is no doubt, but God can make unnaturall Apparitions',[315] in general vision is a distorted capacity of the mind.

Delusive imaginations are based on the incorrect compounding of single imaginations, and there is clearly a political aspect in Hobbes's discussion of visions. Vision is not only description of a perversity of the mind, but also serves as an aetiology of fanaticism. Related to visions are the doctrine of private judgement, pretence of inspiration, and (true and false) prophecy. In brief, certain imaginations, that is, religiously motivated imaginations, which amplify private judgement and strengthen alleged prophecies, are politically dangerous for they provoke fanaticism, sectarianism, and, ultimately, civil unrest.[316] However Hobbes's attitude to these phenomena is not clear cut. On the one hand, he clearly abhors them as irrational, but on the other hand he takes them as proper objects of philosophy, something that needs to be dealt with.

The above reflection reveals two things. Firstly, it gives some reason to doubt that sensation is the only notion relevant in Hobbes's philosophical psychology, or that explaining the variety of mental phenomena solely on the basis of sensation is sufficient. Secondly, though Hobbes's analysis moves further into the various parts of his philosophy, the discussed forms of imagination stay within Hobbes's mechanistic, materialistic, and empiricist framework: they can be explained by the materialistic constitution of the mind, that they are ultimately motion, and, because no matter how

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1195. Later the idea is found, for example, in Aquinas who writes that 'in his *De Genesi ad Litteram* Augustine describes three kinds of vision; namely, corporeal, which is the action of the sense; spiritual, which is an action of the imagination or fantasy; and intellectual, which is an action of the intellect' (*ST* I.q78.a4.o6). Cf. Augustine, *De Genesi ad Litteram* book XII, especially sections 6-7, 11, 24.

313 The example, which is not from Hobbes, refers to Constantine's vision on the eve of the battle of Milvian Bridge. See Eusebius, *Life of Constantine* Book I, Chapters 28-32. A real case that might have influenced Hobbes's view on visions was the possession of the nuns of the Ursuline convent at Loudoun, France, in 1632. On this, see a copy of Digby's letter to the Prince de Guémene (*Correspondence* Letter 25, 43-45 and editor's notes 1 and 13). On visions in general, see also *Correspondence* Letter 201, 761. Hobbes maintained his interest toward supernatural, religious phenomena and their naturalistic explanation. A discussion worth mentioning is Schaffer 1998 (see especially, the section 'Martha Taylor, "Wonder of Wonders"').

314 *Leviathan* II, 7.

315 *Leviathan* II, 7. His view here seems to resemble his account of miracles. See *Leviathan* XXXVII.

316 See (respectively) *Leviathan* XXIX, 168 and XLVI, 376; XXXVI and especially, XLII, 303-304. Note that the idea is touched earlier in *Leviathan*. For some instances, see *Leviathan* II, 7-8 and the analysis of madness in Chapter VIII. For a short but extensive account of sectarianism in the 17th century, see Charles Blount's letter to Hobbes (*Correspondence* Letter 201, 759-763 and editor's notes to the letter). The account of chronograms in *Correspondence* (Letter 84) is also illustrative.

wild a phantasm is, it is possible to resolve it with the previous sensations. In this respect, Hobbes's analysis of imagination changes when he moves to the last form of imagination, understanding.[317]

Hobbes's analysis of understanding is divided into two parts and the division is based on his definition of understanding. In *Leviathan*, understanding is defined as an imagination 'raysed in man (or any other creature with the faculty of imagining) by words or other voluntary signes'.[318] Understanding of words will be dealt with later; in what follows I will concentrate on other voluntary signs.

CONCEIVABILITY AND HOBBES'S THEORY OF SIGNS

Analysis of different forms of conceivability[319] is embedded in Hobbes's theory of signs and, further on, his theory of names. Scholarship has discussed Hobbes's theory of names, but not so much of his theory of signs. A consequence of this is the already mentioned over-simplification of Hobbes's theory of sensation. Tom Sorell, for instance, concludes that for Hobbes human thinking is simply 'a by-product of sense'.[320] In part, this is a plausible conclusion: the mind and its functioning are a by-product of sense; but in what follows I shall try to show that it is not a very simple by-product, but has various layers. Another commonplace is to take Hobbes's subjectivism seriously, that is, to claim that he thinks that our perceptions are subjective appearances. A way to clarify both shortcomings is to appreciate Hobbes's analysis of different kinds of signs.

An initial clarification is needed. Hobbes uses the term 'sign' with various meanings. Firstly, there is the distinction between marks and signs. Roughly speaking, marks are the units of mental discourse, whereas signs are the units of verbal discourse.

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[317] Here my view differs from the standard view, according to which 'Hobbes differs from the standard empiricism in that he appreciates that language is included in that which was at first begotten upon the organs of sense' (Gert 1996, 158). This analysis runs into a number of problems that are discussed in the following sections.

[318] *Leviathan* II, 8. For discussion of Hobbes's claim, see McNeilly (1968, 41). For the broader context, see Serjeantson 2001.

[319] My choice of the term calls for two explanatory notes. First, conceivability is not perhaps the most frequent term Hobbes uses to describe the phenomenon, but he indeed uses it (for instance, *Elements* I.8, 22). By conceivability I mean ways in which we become aware of reality through different kinds of phantasms, like sensations, memories, "understandings" and so forth. Second, when referring to conceivability, I will also sometimes use the word understanding in the ordinary, not the Hobbesian, sense. My use of the term is then both broader than Hobbes's and systematic with no special historical connotations.

Recently, Duncan (2005, 439) has argued that Hobbes, at least in the early 1640s, used the term 'conceivability' in a broader sense. In general, I am sympathetic with Duncan's analysis, but it has two problems. First, as Duncan himself writes. 'Hobbes does not, however, use this terminology consistently' (*ibid.*). Second, Duncan's reading is based on an imagist or pictorial reading of Hobbes, which, as will be argued, is not a plausible one.

[320] He makes this claim in both of the major areas (cogitation and motivation) of Hobbes's theory of human nature. See respectively Sorell 1986, 85-86 and 91-92.

It is not fully clear whether marks and signs are the two sides of the same coin but in many places Hobbes seems to think so. For instance in *Leviathan* he writes that 'the first use of names, is to serve for *Markes*, or *Notes* of remembrance. Another is, when many use the same words, to signifie (by their connexion and order,) one to another, what they conceive, or think of each matter; and also what they desire, feare, or have any other passion for'.[321] Even so, Hobbes did not deny that thinking without language is not possible (this issue will be touched upon below and also in the next chapter), only that some developed forms of reasoning require language. This is articulated clearly in *Concerning Body*, when Hobbes distinguishes between two kinds of methods, that of invention and that of demonstration. He writes: 'Nevertheless, as I said above, they serve as *marks* for the help of our memory, whereby we register to ourselves our own inventions; but not as *signs* by which we declare the same to others; so that a man may be a philosopher alone by himself, without any master; Adam had this capacity. But to teach, that is, to demonstrate, supposes two at the least, and syllogistical speech.'[322] Secondly, Hobbes uses the term 'sign' in two different senses, general and specific. The specific meaning will be discussed later, but the general meaning is as follows: a sign is 'the Event Antecedent of the Consequent; and contrarily, the Consequent of the Antecedent, when the like Consequences have been observed, before: And the oftener they have been observed, the lesse uncertain is the Signe'.[323] Aside from the technical definition, Hobbes uses the term sign in the way it was (and is) used in everyday language, that is, something which indicates or stands for something. Lastly, signs in Hobbes can be divided into pre-linguistic and linguistic signs and they can be natural, voluntary or artificial. Because he nowhere makes any clarifying and systematic statements about how the different distinctions in his theory of signs relate to each other, it is at times hard to say, for instance, whether a mark is a natural or a voluntary sign. What, however, seems to be true in general is that all artificial signs are signs in verbal (that is, inter-personal) discourse. Even though there is a lack of clarity in the terminology, it is meaningful to analyse the forms of conceivability in terms of signs.

Hobbes's general definition of a sign appears to be in line with his conception of sensation as something which always contains some memory in it. We may redefine sense as a conjunction between something that is in the mind at the moment and something that has been perceived earlier.[324] This, however, leaves out sensations of new things and, in

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[321] *Leviathan* IV, 13. Cf. *Concerning Body* I.2.2-3, 15-16.

[322] *Concerning Body* I.6.11, 80.

[323] *Leviathan* III, 10.

[324] For an early view of sense and memory, see *Elements* III.9, 29. Consequently, memory creates the intra-personal continuity of the mind, and Hobbes seems to hold a proto-Lockean theory of personal identity, namely that the identity of a person is based on diachronic continuity. This reading finds further evidence from the annihilation argument (*Concerning Body* I.VII.1, 92). On the origins of this 'method of annihilation', see Funkenstein 1986, 172-174 and 186.

fact, it is not possible to give a definition of sense in terms of Hobbes's theory signs. The reason for this is that in a sensation of something new, there is not this kind of relation, and Hobbes's concept of sign is relational. One is able to interpret this conclusion at least in two ways. Either sensation is an elementary concept, which does not need any further explanation (similar to the axioms of geometry) or if there is no proper definition of sensation, the question arises why this is so. I prefer the latter interpretation for the following reason.

It is true that sensation is a basic concept in Hobbes's philosophy and it can be understood as an axiom which does not call for further justification, only a definition, which Hobbes gives. This is not, however, exactly the issue I wish to raise here. Even if we are able to give sensation a proper definition, the problem is, still, its poor force in explaining various phenomena and functions of the mind. In brief, sensation is one of the basic axioms (concepts) of Hobbes's philosophical psychology, but it is not all-embracing.

The first capacity that can be defined in terms of Hobbes's theory of signs is memory, which operates with marks. A mark, Hobbes defines in *Elements*, is 'a sensible object which a man erecteth voluntarily to himself, to the end to remember',[325] that is, it is a prop to memory. It is possible to make two conclusions from this: marks signify the conceptions of the mind and marks are strictly inner means of communication. Both conclusions have their problems.

Hobbes's discussion of a mark appears to be related to his conception of a name, but the two notions easily become entangled. This is most clear, perhaps, in *Elements*, where Hobbes after defining the notion of mark goes on to explain that:

> In the number of these marks, are those human voices (which we call the names or appellations of things) sensible to the ear, by which we recall into our mind some conceptions of the things to which we give those names or appellations. As the appellation white bringeth to remembrance the quality of such objects as produce that colour or conception in us. A NAME or APPELLATION therefore is the voice of a man, arbitrarily imposed, for a mark to bring to his mind some conception concerning the thing on which it is imposed.[326]

On the basis of this, it may be asked: which, marks or names, signify the conceptions of the mind? What Hobbes seems to suggest here is that it is a name, not a mark that brings to mind a conception, but then again, the passage may be read so that conceptions can be raised either by marks or by names. There is a terminological confusion, which, I believe, can be explained.

The beginning of the article states that names are a class of marks. This suggests that there is a specific class of names: strictly private names, that is, words that have meaning only in an individual, solipsistic vocabulary. In my opinion, this is a far-fetched

[325] *Elements* V.1, 35. Cf. *Leviathan* IV, 13; *Concerning Body* I.2.1-2, 13-14

[326] *Elements* V.2, 35.

solution. Names are for Hobbes interpersonal conceptions, and no private names exist. What remains confusing is that Hobbes's definition of a mark seems to speak against this conclusion. There is a further aspect that may help us out of a solipsistic conclusion.

In the passage quoted Hobbes does not explicate one of his central distinctions, namely the distinction between mental and verbal, or a train of thoughts and a train of words, or discourse and discursion.[327] *Leviathan* is more clearer on this question. Marks and signs are understood as two sides of the general use of speech, which is 'to transferre our Mentall discourse into Verbal; or Trayne of our Thoughts, into a Trayne of Words'.[328] In this transformation, marks are the mnemonic and signs the communicative aspect.

Marks should, however, be distinguished from natural non-voluntary signs, like clouds as the sign of rain or ashes as the sign of fire.[329] Understanding natural signs is based on memory,[330] which originally creates the relationship between certain events. Because of this, the relationship is still conjunctive, not causal by nature. These kinds of signs differ from memories in that they are generalisations, and the more signs a person has, the more experienced he or she is said to be. Sometimes experience and wisdom are taken to be the same thing, but Hobbes thinks this is incorrect, for experience 'concludeth nothing universally' and a person with more experience, that is, with a larger collection of 'what antecedents have been followed with what consequents' is a good guesser, rather than being prudent, for prudence requires a quick imagination.[331]

The next forms of conceivability (that of natural, voluntary signs and that of artificial, voluntary signs) seem to differ only a little from each other. For example, the hiss of a cat (a sign of animosity) and its purring (a sign of friendliness and contentment) are natural voluntary signs. These differ from natural non-voluntary signs, because to a sign, or perhaps what is more appropriate to say, to its producer an intention is attached. From this it follows that natural voluntary signs include an element of communication. They are addressed to somebody outside of an agent.

Stones that mark a field are an example of artificial voluntary signs.[332] It is true that stones are natural bodies, but here they are used in an artificial manner. In the same way as there is an intention in, say, smiling, there is an intention in encircling a field. It then turns out that marks, which are the basic units of intra-mind communication, are rather developed devices.

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[327] *Leviathan* IV, 12 and *Elements* IV.1, 31.

[328] *Leviathan* IV, 13. Note that Hobbes has here dropped the technical distinction between discursion and discourse that appears in *Elements*.

[329] *Elements* IV.8-9, 33; *Concerning Body* I.II.2, 14. Jesseph (1999, 213) has a rather straightforward view of Hobbes's conception of natural signs.

[330] See also what Hobbes says on signs of science in *Leviathan* III, 22.

[331] See *Elements* IV.10 and 6, 32-33.

[332] *Concerning Body* I.II.2, 14-15.

Hobbes's analysis of the forms of conceivability is not without its problems. The first obscurity involves the distinction between sense and memory, on the one hand, and other forms of conceivability, on the other. The difference between understanding raised by voluntary signs and one raised by other signs embedded in sense arises due to the fact of the nature of the former. Voluntary signs are a sub-class of artificial signs, which can be of two kinds, verbal and non-verbal. Furthermore, non-verbal voluntary signs are contrasted with natural signs. Therefore conceivability that takes place in sense and memory is natural and materialistic, whereas other forms of conceivability are more or less artificial in the sense that to them an intention is attached by an agent.

The second obscurity relates to the nature of thinking (and even reasoning) that takes place in these processes. It is a little unclear whether reasoning with natural signs is the same thing as understanding. On the one hand, it seems reasonable to think that it is, because the process started by natural signs fulfils the criterion mentioned in the definition of understanding: it raises a thought in an individual. On the other hand, it does not fulfil the criterion, because natural signs are not voluntary.

To Hobbes, voluntary is something related to deliberation, which is the name of a chain of appetites concerning good and evil consequences that leads to action.[333] Additionally, it is a description of the structure of emotive judgement that is present already in the sense (remembering that there are two reactions to external pressure in a subject, that of the brain and that of the heart). The key feature of a voluntary sign is then that it is, in one way or another, intended by an agent. What clouds and stones lack, is exactly this, and therefore they are not voluntary signs, while, for example, the hiss of a cat (a sign of animosity) and its purring (a sign of friendliness and contentment) are.[334] A further elucidation of the difference is to say that what clouds and stones lack, and men and other living creatures have, is signs in the specific meaning that Hobbes gives to the term in Chapter IV of *Leviathan*, namely something used to express one's thought to others.[335]

Despite the relatively elaborate classification of different levels of conceiving reality, there appears to be a gap between the material structure of reality and its

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[333] *Leviathan* VI, 44.

[334] It has been proposed that Hobbes is committed to 'pan-sensism' (see, Leijenhorst 2002, 98). The line of argument provided here objects to this reading. Additionally, Hobbes explicitly denies this kind of reading: 'But though all sense, as I have said, be made by reaction, nevertheless it is not necessary that every thing that reacteth should have sense. I know there have been philosophers, and those learned men, who have maintained that all bodies are endued with sense. Nor do I see how they can be refuted, if the nature of sense be placed in reaction only. And, though by the reaction of bodies inanimate a phantasm might be made, it would nevertheless cease, as soon as ever the object were removed. For unless those bodies had organs, as living creatures have, fit for the retaining of such motion as is made in them, their sense would be such, as that they should never remember the same. And therefore this hath nothing to do with that sense which is the subject of my discourse' (*Concerning Body* IV.25.5, 393). More specifically, this is a reference to Adrian May's theory of perception. See *Correspondence* Letter 49 and the editor's notes to the letter.

[335] *Leviathan* IV, 25.

intelligibility. One possible way to amend this problem is to give an argument that consists of three parts. The first studies the process of conceiving from the point of view of mental discourse, whereas the second does the same from the point of view of verbal discourse. The final part is to show that these two have something in common. The other two parts will be discussed after the analysis of the second principal part of Hobbes's psychology, his theory of motivation. The first part of the argument has already been discussed above and it is sufficient to provide a summary with some additional remarks.

I take the passage on apparition in *Concerning Body* to refer simply to the normal evolution of the mind. Our knowledge of the world grows gradually as our experience of its various phenomena grows. During this growth we become also more and more capable of classifying it. This development follows a pattern: from different perceptions arises '[m]uch memory, or memory of many things, [which] is called *Experience*' out of which grows '*Foresight*, and *Prudence*, or *Providence*; and sometimes *Wisdome*'.[336] The basis of this is the described material organisation of our memory, which contains numerous states (created by previous experience) that arise to the mind when appropriate external stimulus is present.[337] This I think is the correct understanding of Hobbes's naturalistic analysis of perception, and this is what was referred to earlier in the discussion of imagination as a capacity which consolidates the human mind. The consolidating function of imagination is well articulated in Chapter III of *Leviathan*.[338] The chapter is entitled 'Of the Consequence or Train of Imaginations'. Hobbes's ideas will be discussed in detail at the beginning of the chapter on imagination and knowledge, but now two things need to be introduced.

In Chapter III of *Leviathan*, Hobbes distinguishes between two kinds of mental discourse, unregulated or unguided and regulated or guided. The former is called unguided because there is no desire or design and therefore it appears muzzy. Though Hobbes does not spend much effort in analysing the unregulated succession of phantasms, it is important to notice that already this kind of train of thought is solid. Unregulated mental discourse can be clarified, the consequence of thoughts explained. In principle we are always able to point out the origins of even the most delirious chain of ideas for, in this case, not only the parts, but also the links of the chain have their basis on previous experience. What is unregulated can then be equated with what is unspecified as the cited example of a Roman penny clearly shows.[339]

Another noteworthy idea embedded in Hobbes's analysis of mental discourse is the non-randomness of the succession of phantasms; '[n]ot every Thought to every

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[336] *Leviathan* II, 5 and III, 10. Cf. *Elements* III.6-7, 29-30 and IV.5-9, 32-33.

[337] See *Concerning Body* IV.25.5, 393-394.

[338] Hobbes's earlier accounts are equally useful. See *Elements* IV and *Critique du 'De Mundo'* XXVII.XIX. In *Concerning Body* (IV.25.8), Hobbes's view remains the same.

[339] *Leviathan* III, 8-9.

Thought succeeds indifferently'.[340] 'Indifferently' does not mean that thoughts follow each other always in the same order, sometimes from one thought follows one idea, sometimes another. To use Hobbes's analogy, the relationship between two ideas is determined just as the finger determines the course of water on a table.[341] Certainly, the course of water is determined, but we are able to change the route. Thus we are, to some degree, able to regulate (that is, to regulate and to understand) the wandering of our mind. In this process of regulation of imagination, desire, and motivation have a role.

MOTIVATION

In Chapter VI of *Leviathan*, Hobbes while introducing motivation, reformulates his view of cognition in the following manner:

> As, in Sense, that which is really within us, is (as I have sayd before) onely Motion, caused by the action of externall objects, but in apparence; to the Sight, Light, Colour; to the Eare, Sound; to the Nostrill, Odour &c: so, when the action of the same object is continued from the Eyes, Eares, and other organs to the Heart; the reall effect is nothing but Motion, or Endeavour; which consisteth in Appetite, or Aversion, to, or from the object moving. But the apparence, or sense of that motion, is that wee either call DELIGHT, or TROUBLE OF MIND.[342]

What motivates us according to Hobbes are emotions, or, passions.[343] From this it does not follow that human life is whimsical, merely that the dynamics of mental life is prompted by passions. Secondly, though passions, ultimately, are nothing but matter in motion, Hobbes reflects upon them from a special point of view.

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[340] *Leviathan* III, 8.

[341] *Leviathan* III, 8. See also *Elements* III.3, 28.

[342] *Leviathan* VI, 25. In the passage, the meaning of the word 'motion' is ambiguous. It refers to motion as cause, which is really motion of a body and something completely materialistic, but, also, to motion as effect. What the latter exactly means is, again, obscure. We may understand it as concrete movement, say, when I pull my hand out of water that starts to boil, or, as a thought that causes some further action, for example, my thought 'I want that last piece of cheese' may cause me to pick up the piece from a plate.

[343] Two terminological note is needed here. First, passion is a standard term used already in the Latin and especially in Medieval philosophy. The general metaphysical meaning of the term refers to the idea that something is under the influence of something else. Hobbes's concepts of patient and agent mirror this metaphysical conception of passion. See *Concerning Body* II.9.1-2, 120-121.The psychological meaning refers to those motions of mind or soul, which are caused by some external agents. For example, fear is caused by a sensation of a snake. Second, the modern term 'emotion' does not fully correspond with the 17th century term 'passion'. Though passions were often used to refer to what is now understood as emotions, there were also other kinds of emotions called 'actions'. The difference between the two was, roughly speaking, that passions were caused by something outside an agent, whereas actions were more conscious emotions initiated by the agent. In this respect, 'emotion' is still an apt term in the case of Hobbes, who does not make this sort of distinction explicitly, as did, for instance, Descartes and Spinoza. On emotions in the 17th century philosophy, see James (1997), who, in some places, I follow here.

Hobbes did touch on the questions of motivation and passions before *Elements*,[344] but the manuscript offers a compact introduction to his view of motivation:

> The power of the mind which we call motive, differeth from the power motive of the body; for the power motive of the body is that by which it moveth other bodies, which we call strength: but the power motive of the mind, is that by which the mind giveth animal motion to that body wherein it existeth; the acts hereof are our affections and passions[.][345]

When turning to Hobbes's theory of passions, two familiar ideas arise: his theory of passions appears mechanistic and materialistic, and there is a similar distinction between animal and human psychology as was present in his reflections on cogitation.[346] The physiological side of Hobbes's theory of passions will be discussed in the following pages, but if we are to follow Hobbes, this is an element in the theory. The other element is the philosophical theory of passions, which includes definitions of what passions are, what kind of passions there are, and the role of passions in action and decision-making.

This introductory section deals mainly with some details about the intellectual milieu and background in which Hobbes's theory of passions developed, but will close with some general points of view that are helpful when trying to understand Hobbes's account of human motivation. My aim is not to show that this or that work clearly influenced Hobbes, and I shall restrict myself to a few comments on the issue, rather than giving a thorough historical analysis.

Considering the classical background, there are two major candidates: Aristotle and Cicero. The basic difference between Aristotle and Cicero was that the former introduces a variety of passions, which are listed in *De Rhetorica*, whereas the latter claimed, following the Stoics, that there are four basic passions.[347] The standard view defends the influence of Aristotle and, in particular, that of his *De Rhetorica*.[348] The following reflection can be summarised. Firstly, as James notes, Hobbes's classification of passions is ultimately based on two basic motions, appetite (or desire) and aversion, which was the common Aristotelian distinction.[349] The second is Hobbes's personal intellectual history. We know that Hobbes both translated (partly) and valued Aristotle's

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[344] Instances include a letter to young Cavendish about his conduct while in Paris in 1638 (*Correspondence* Letter 28, 52-53) and the translation of Aristotle's *De Rhetorica*.

[345] *Elements* VI.9, 43.

[346] Some scholars tend to repeat the overt layer of Hobbes's theory of passions. For example, McNeilly (1968, 95 and 100-104), though he notes that the theory of passions in *Leviathan* is not as materialistic and egoistic as is usually thought, still reads Hobbes's theory of passions and motivation in physiological, mechanistic terms.

[347] James 1997, 5.

[348] Among scholars, Strauss (1952, Chapter III, especially 37-41) has made the strongest case here.

[349] James 1997, 5. For the original discussion, see *Ethica Nicomachea* 1104b4-1105a17.

De Rhetorica.[350] In my opinion, the argument should be complemented by an observation: it may be that the translation of *De Rhetorica* was made for Hobbes's private educational uses and did not have as much influence on Hobbes as has been claimed.

Some evidence for the influence of Cicero can also be shown. To James's claim one may reply that there are resemblances between Hobbes's account and the Stoic theory of passions. He makes, for instance, the distinction between basic and derivative passions.[351] And to Strauss's argument it can be answered that Stoicism in 17th century was understood through Cicero. That is, if a thinker was familiar with Stoicism this was probably because he or she was familiar with Cicero. Secondly, as James[352] suggests, when the 17th century authors consider passions, Stoicism (and, at least indirectly, Epicureanism) were favoured instead of Aristotelianism. Therefore it is far from axiomatic that Hobbes's 'theory of the passions was influenced by Aristotle's *Rhetoric*'.[353] His pedagogical assignments here may have some impact, but the whole basis of the theory of passions is different from that of Aristotle, and the formal similarities are not enough to prove the influence of Aristotle.

Moving on to the contemporary influences, a crystallisation of the 17th-century discussion of passions is taken to be Descartes's *The Passions of Soul* (1647), and after him passions had two principal meanings.[354] The first, a broad one, refers to the motions of the mind that are caused by external agents and which are opposed to actions caused by will, for example, fantasy is a passion in this sense. The second and a narrow meaning refers to passions as feelings. In this sense, joy, for example, is a passion. Lastly, it should be added that though passions were considered irrational or at least harmful to rational thinking, this is far from being the whole truth on the matter. Quite the opposite, many 17th century thinkers, Hobbes included, understood certain passions, especially curiosity, to be crucial to thinking and knowledge.[355]

Though Hobbes conversed with the leading minds of his time, it would be a mistake to think that philosophical reflections on passions are the only background sources of his view. The literature on passions was widely popular in England and Continental Europe, France in particular. Therefore the general readers of the first half of 17th century was also influenced by a wide selection of popular books on passions, like

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[350] *Brief Lives* (Clarke), I, 357. The translation of Aristotle's *De Rhetorica* is published in *EW*, VI and in Harwood (ed.)1986. The catalogue of the Cavendish library lists 6 editions that Hobbes might have used. See *Chatsworth Catalogue*, I, 78-79. For a discussion, see Strauss (1952, Chapter III); Harwood (1986); and Howell (1952, 384-385).

[351] See, for example, *Leviathan* VI, 25 ('These simple passions ...').

[352] James 1997, 5-7 and 23-4.

[353] Strauss 1952, 42.

[354] Descartes 1984, I, 335-339.

[355] James 1997, 189 and 196.

François Senault's *De l'usage des passions* (1643), Thomas Wright's *The Passions of the Mind in General* (1604), Robert Burton's *The Anatomy of Melancholy* (1621), and Timothie Bright's *A Treatise on Melancholie* (1586).[356] In what follows, not all the works mentioned are discussed in detail,[357] but two remarks are worth of making. Firstly, similarities exist on the general level. For instance, Wright takes self-love (Gr. *philautía*, Lat. *amor proprius*) to be the mother of passions that God has implanted to every one of his (living) creations and, following Aquinas, he says that there are eleven passions in all.[358] Senault considers passions to be the most difficult of things to learn about, not only learn to master.[359] Burton makes a similar distinction between vital and animal spirits as Hobbes, though he also speaks of natural spirits.[360] There is also some correspondence in details; Wright, for example, talks of the insatiable nature of passions.[361]

A case apart is the analysis of imagination. Here Senault and Wright offer curious statements. Wright speaks of children, who 'lacke the vse of reason and are guided by an internall imagination',[362] or of God who has given to his creations different means of aggression: 'to the Bull he hath imported hornes ... to men their hand and witte'.[363] Both, Senault and Wright also establish an intimate connection between passions and imagination as a pair which seeks to mislead reason. Senault writes that '[t]he imagination never represents them [passions that have a voluntary element] to the mind without speaking in their favour', which Wright echoes: ' the imagination representeth to the understanding, not only the reasons that may favour the passion, but also sheweth them very intensively, with more shew and appearance than they are indeed', or in a more hilarious way about 'how the imagination putteth greene spectacles before the eyes of our wit, to make it see nothing but greene, that is, serving for the consideration of the Passion'.[364] Lastly, and curiously enough, Senault points out that '[i]t is not even necessary that the good and evil represented by the Imagination should be real'.[365]

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[356] For the editions used here, see the bibliography.

[357] There are many probable connections. For instance, there is some evidence (Malcolm 2002, 95-96 and references there) that Hobbes and Burton knew each other through a common friend, Robert Payne, but whether or not Hobbes ever read Burton's book is not sure.

[358] Wright 1620, 11 and 22. See also Burton (1927, 141). Wright is following the Medieval practice of using *amor proprius* instead of the classical *amor sui*.

[359] Senault 1772, 157. The idea seems to be that we are not only the slaves of passions but also that this is painful to understand and admit. Here Senault also refers to Horatius's sentence: *Vino tortus et ira*, which appears in *Epistola* 18 and which can taken to refer to moderation according to one's status.

[360] Burton 1927, 129.

[361] Wright 1620, 71-72.

[362] Wright 1620, 7. Cf, *Leviathan* V, 21.

[363] Wright 1620, 21-22. Cf. *Leviathan* IV, 13.

[364] See (respectively) Senault 1772, 16 and Wright 1620, 51.

[365] Senault 1772, 19. Cf. *Leviathan* VI, 24.

What the above discussion shows is that again and again the question of what influenced Hobbes turns out to be rather difficult. The axiomatic views that Hobbes's theory of motivation was influenced by some contemporary reflections of motion or by Aristotle's treatise on rhetoric are far too narrow. Surely both had an impact, but what exactly that was, is a subject for meticulous study. As is the whole setting.

My own conclusion is that the speculation on the historical origins of Hobbes's theory of passions and motivation has demonstrated a thing: there are probably no compulsory reasons to believe that many of the mentioned works had an influence on Hobbes. For instance, both Senault and Wright are more attached to the Scholastic tradition and Christian moral mentality than Hobbes would ever be.[366] Also the influence of Descartes is hard to show. *The Passions of the Soul* was relatively late, that is, it appeared after the time Hobbes had formulated his view of passions. In sum, two things remain plausible. There was an intense discussion of passions during the time of Hobbes, and the nature of this discussion was anti-traditional; a sign of which was, above all, the strong emphasis on physiological accounts of passions. Secondly, many ideas, like that of *amor proprius*, that are at times taken to be peculiar to Hobbes were part and parcel of the general discussion.

Before entering into a more detailed discussion, some basic ideas need to be listed. As the analysis of sense and the forms of conceivability have suggested, the basic passions of desire and aversion regulate all mental activity, and therefore passions always have a place in our thinking and action.[367] Secondly, imagination plays a role in the theory of passions for it is 'the first internall beginning of all Voluntary Motion.'[368] Thirdly, imagination and passions affect each other. A vivid example is vainglory. A vain-glorious person is one who takes him- or herself to be something special on a false basis, for example, the person believes flattery or has false imaginations of him- or herself, for example, likening himself to Napoleon.[369] A peculiarity of Hobbes's reflection on passions is that the pleasure that a vain-glorious person gets from a false imagination of his or her own person, seems to be as efficient as the one that a person gets from a real source, say, disinterested love. Lastly, though grounded on a physiological account of passions, language seems to be a factor that has a decisive role in Hobbes's theory of motivation. After these lengthy preliminary remarks, it is possible to move onward.

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[366] Perhaps we would be much more informed on the influences and details of Hobbes's theory of passions, if only he had been be as detailed and conscientious in reporting his sources as Wright, or had spent more time in pragmatics ('good and ill use of passions'), as Senault did.

[367] This claim is made explicitly in Chapter three of *Leviathan*.

[368] *Leviathan* VI, 23.

[369] *Leviathan* VI, 27. Cf. *Elements* IX.1, 51 and X.8, 63. Hobbes's discussion in the early treatise is more lively. See also Kahn 2001, 14 and Frost 2001, especially 35.

MOTION AND THE PHYSICAL THEORY OF MOTIVATION

Hobbes's theory of motivation leans on two kinds of motions. First is the vital motion, which once started, will continue its movement until a human being dies. Circulation of blood and breathing are this kind of motion, which does not need the 'help of imagination'.[370] In the second kind of motion, animal or voluntary motion is included as one of the components of imagination. That is to say, human beings first imagine an action in their mind and then give an order to the body, for example, 'speak' or 'walk'. Hobbes seems to think that we do not usually recognise these motions because we are so accustomed to certain actions. Nevertheless, in philosophy we do need an exact account of motivation, and in particular, an account of what is the relationship between vital and voluntary motion.

Earlier it was pointed out that in his physiological theory of the mind, Hobbes defines the relationship between vital and voluntary motion as follows: 'that animal spirits are nothing but vital spirits purified by the heart'.[371] This is echoed in Hobbes's discussion of passions, where he re-establishes the link between physical and psychological notions of endeavour: 'small beginnings of Motion, within the body of Man, before they appear in walking, speaking, striking, and other visible actions, are commonly called ENDEAVOUR'.[372] After describing endeavour, Hobbes moves on to explain the two basic forms that it can take. These are appetite (or desire which is the general name for appetite) and aversion. When an endeavour turns toward something, which causes it, we speak of appetite and the appearance or phantasm of this is called pleasure. The contrary endeavour, that is, something that makes us turn away from something is called aversion, and its appearance is pain.

With appetites some are natural, such as the appetite for food, but mainly appetites and aversion focus on particular things and 'proceed from Experience'.[373] We can have a specific appetite only for things that we know by experience (our desire to unknown things is 'tast and try'), whereas aversions can relate to unknown things because we do not know whether they will hurt us or not[374]. The three basic passions are love, hate and contempt, although the last is not properly speaking a passion, but 'an

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[370] *Leviathan* VI, 23.

[371] For both ideas, see *Concerning Body* IV.25.10, 403.

[372] *Leviathan* VI, 23.

[373] *Leviathan* VI, 23. The Latin origins of the terms are *appeto* and *averto*. The similar Greek expressions are *hormê* and *aphormê*. It has been recognised (see Airaksinen 1993, 85-86, who I follow, to some degree, here) that this part of Hobbes's theory of passions has a weakness. The problem is that Hobbes understands appetite and aversion to be separate things, not different perspectives as his contemporary Descartes (1984, I, 359) thought.

[374] Hobbes appears to think that fear or other negative emotion toward unknown is typical to human beings, but does not give any explicit clarification for this. One could add that this corresponds neatly with his analysis of the natural causes of religion. For this, see *Leviathan* XII and my discussion below.

immobility, or contumacy of the Heart', that is, indecisiveness.[375] Love and hate are the concrete counterparts of desire and aversion, and the difference between the two pairs is that in the former an object of endeavour is physically present. From these starting points Hobbes builds up a list of passions that include hope and laughter as well as good and evil.

The trouble with passions is their dynamics, which is 'continuall mutation: it is impossible that all the same things should alwayes cause in [a human being] the same Appetites, and Aversions'.[376] This seems to suggest two things. First, that our motivation is ultimately nothing but bodily motion and, second, that passions are, as Hobbes occasionally calls them, perturbations and as such harmful to us. The latter is a platitude, which is not, as suggested earlier, even completely true. The first claim is, however, interesting.

What seems *prima facie* persuasive is that Hobbes at least adopts the language of mechanism. An example of this fashion is Hobbes's description of inward motion. Motion caused by an external object travels from the eyes, ears and other organs of sense to the brains and further on, to the heart, and the result, we learn from Hobbes, is nothing but motion ('for motion produceth nothing but motion').[377] Another consideration, however is how successful the explanation is.

Let us adopt, for a moment, a strictly mechanistic and materialistic model of explanation. Now, if a person A is to have an appetite towards an object O, we say that he receives a perception of the object and, physiologically speaking, that the perception causes the enlargement of the heart and moves the person towards an object. The object O is said to have a motivational force upon the person A. An important thing to understand is that in mechanical terms the enlargement of the heart (in purely physical terms, increase of motion within the body of A) indicates the amount of capacity to act. The pattern seems to work well in the case of appetite. Appetites increase our capacity to act by accelerating the vital motion in our body. The trouble arises when we move to aversion.

According to a general explanation, aversion is something that moves a person A away from the object O. If we follow Hobbes, this is not the precise interpretation. The correct reading is that aversion will reduce the heart and decrease the motion within the body of A. Therefore aversion may be said to paralyse the person A and make him or her incapable of action of any kind. The case of fear is illuminating. According to the mechanical explanation, as an aversion, fear reduces the heart and decreases the motion within the body of a person

[375] *Leviathan* VI, 24.

[376] *Leviathan* VI, 24.

[377] *Leviathan* I, 3.

An obvious contradiction arises, for the above is not what Hobbes says. We may easily pick up from his works passages that show that fear can cause motion in man.[378] He then says quite the opposite of what the mechanical reading of his theory of motivation suggests. Fear and other negative emotions can have a significant motivational power in a man. The action based on the 'negative' motivation may, and often is chaotic but the salient point here is that it contains a lot of motion. How are we, then, to understand the contradiction? The solution is threefold. Firstly, the proposed reading is not indeed what Hobbes says. Instead of being material-mechanistic, his theory of motivation can be better described as a dynamic model, where the totality of desires and aversions related to an object form a solid motive after a process of deliberation. Secondly, the paralysis argument can be interpreted in a different way. Lastly, that aversion is genuinely motivating makes sense only if two things are taken into account: the analysis of motivation through the capacity to imagine and to make decisions, and the semantics of passions.

The standard view faces yet another problem when the relationship between motivation and the unknown is looked at in detail. If everything in our mind is supposed to originate in sensation, it appears somehow strange that we can have aversions that do not have any point of reference in our experience. Hobbes could answer to this that here exactly lies his point. Reasonable and sane people do not believe that these kinds of things exist, they are obvious nonsense, fairy tales mainly created and spread by old wives and power-hungry priests. Nevertheless, he takes the time and trouble to discuss them in detail, and he does this because he sees them as real motives. The explanation must lie elsewhere.

Hobbes's vocabulary of human nature changes along the way from the physical to the philosophical, or to the psychological theory of motivation. A way to demonstrate this shift is the notion of endeavour. As explained, endeavour is the smallest possible unit of motion and in the light of this, all the processes of mind consist of endeavours. But the endeavour peculiar to motivation is not just motion, but voluntary motion or, as has been duly noticed, 'the thoughts which precede action are "commonly called endeavour"'.[379] Here the physical and psychological notions of endeavour, and more broadly physics and psychology, overlap.

The case is not, however, so that Hobbes only gives different names to motion which travels through a sentient. When he calls certain forms of endeavour (pleasure and pain) the appearances of motion, he makes a qualitative, if rather familiar distinction. On the one hand there is the physical world of bodies and motion (that is, primary qualities), but on the other hand there is the phenomenal world of desire, hope, giddiness and other

[378] One argument is found in *Leviathan* (XIII, 63) where Hobbes introduces the remedy for the natural condition of humankind.

[379] James 1998, 928. The inset quotation is to *Leviathan* VI, 23.

passions (that is, secondary qualities). What is perplexing is that Hobbes seems to put forward a theory of mental causation.

Again the problem is aversion and its motivational force. In *Concerning Body*, Hobbes states in a firm voice that 'animal spirits are nothing but vital spirits purified by the heart', and more specifically in *Leviathan*, Hobbes clarifies the purification of vital spirits by explaining that pleasure is 'a corroboration of Vitall motion' and pain is 'hindering and troubling the motion vitall'.[380] These, however, sketch a physiology of action, not a theory of motivation. It tells how our body functions, when we act, but nothing much about reasons we give to our actions. Secondly, because Hobbes limits desire and pleasure to the things of which a person has already had an appropriate experience of, say, a taste of a particular ice-cream, no problem of mental causation occurs. The motive to have, say, a chocolate ice-cream is explained by a pleasant previous experience of it. The cause of any given action is the re-activation of a memory, that is, a certain physical composition in our brains that has been stored in the memory before. In the case of desires Hobbes then manages to avoid the idea of mental causation, but the same line of reasoning does not work in the case of aversions.

The problem with aversions is that 'wee have [them] for things, not onely which we know have hurt us; but also that we do not know whether they will hurt us, or not',[381] that is, a physical composition in our brain does not necessarily exist corresponding to a particular aversion. A lively formulation of this is Hobbes's idea on the natural causes of religion. Man's curiosity about the causes of his good and evil fortune and his worries about the origin of the world produce a certain kind of anxiety:

> For being assured that there be causes of all things that have arrived hitherto, or shall arrive hereafter; it is impossible for a man; who continually endeavoureth to secure himselfe against the evill he feares, and procure the good he desireth, not to be in a perpetuall solicitude of the time to come [...]
>
> This perpetuall feare, alwayes accompanying mankind in the ignorance of causes, as it were in the Dark, must needs have for object something. And therefore where there is nothing to be seen, there is nothing to accuse, either of their good, or evil fortune, but some *Power*, or Agent *Invisible*.[382]

In other words, we can fear or hate something without having any experience of it. It is however unclear how these can have an impact on our decisions and actions?

An obvious answer is that unknown things do not have a real impact and that people with artificial or unknown aversions have misunderstood something. This also appears to be Hobbes's answer in certain cases. For instance, the fear of the unknown in

[380] *Concerning Body* IV25.10, 403 and *Leviathan* VI, 25.

[381] *Leviathan* VI, 24.

[382] *Leviathan* XII, 52.

its endless forms – listed quite extensively in Chapter XII of *Leviathan* – is indeed a praise of folly.

A philosophical way to formulate the answer is to refer to the disruptive nature of passions. This line of explanation states that people with aversions towards the unknown have a surge of emotions or a similar dysfunction of the mind, and they do not understand that their aversions 'are nothing else but creatures of the Fancy, think to be reall, and externall Substances'.[383] In short, aversion to something that has not been experienced, is to misunderstand the consequences of inward motion.

The appeal to some kind of disorder does not, however, solve the problem entirely. Surely in some cases, say, when someone has suffered a serious loss, the person can be delusional, but to generalise this conclusion only leads to the already mentioned contradiction with Hobbes's general tenets that passions are the constituents of cogitation and the source of motivation. Additionally, the above analysis shows that mechanical materialism, at least in its rigorous form, is contrary to Hobbes's own text and especially what he says about the motivating force of aversions. Therefore it seems to be a fair conclusion that a robust mechanistic-material reading of Hobbes's theory of human nature is not convincing. Instead, we may consider our emotional life as a mode of thinking.

DELIBERATION AND THE PSYCHOLOGICAL THEORY OF MOTIVATION

Along with his alleged atheism and prominent materialism, the subject that raised resentment among his contemporaries was Hobbes's denial of free will. Instead of being free – or in Latin, *liber* – Hobbes claimed, the will is determined by which, it will be claimed here, he meant that our decisions are considered or thought of (in Latin *deliberare*). Hobbes did not deny our freedom to do what we chose, merely that there is no such thing as free will. The theoretical basis of this question is contained into the exchange between Hobbes and Bishop Bramhall (ca. 1594-1663), which is above all about God.[384] When one looks more carefully the debate between Hobbes and Bramhall, it turns out that the emphasis is on the word 'will', not on the word 'free'.

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[383] *Leviathan* XII, 53.

[384] This aspect of the discussion is omitted here, but briefly put it is as follows. First, Hobbes seeks to refute Bramhall's Scriptural arguments of free will giving his own rival interpretations of certain passages from the Bible based partly on the authority of St Paul (see *Liberty and Necessity*, 241-251). Second, and here is where they seem to differ most, Bramhall claims that God made man free to choose between good and evil and it is man's task to find out what is good and evil, whereas Hobbes thinks that man is never able to know the mind of God. Finally, Hobbes criticises Bramhall's *petit bourgeois* ideas of what it is to sin, or what it is to be just and unjust. The core idea is, still, the same as that in the philosophical debate: liberty and necessity are not exclusive and, according to Hobbes, to understand the true nature of God, that is, that He is the omnipotent creator of the world supports his view.

Hobbes's central argument against Bramhall, in particular, and freedom of will, in general, appear to be quite simple. Bramhall has not understood the relationship between liberty and necessity. Instead of being mutually exclusive, they are in a perfect harmony. As he writes in the earlier version of the debate:

> The question therefore is not, whether a man be a *free agent*, that is to say, whether he can write or forbear, speak or be silent, according to his *will;* but, whether the *will* to write, and the *will* to forbear, come upon him according to his *will*, or according to anything else in his own power. I acknowledge this *liberty*, that I *can* do if I *will;* but to say, I can *will* if I will, I take to be an absurd speech.[385]

Behind the familiar mockery of School-men, Hobbes's view is based on the following arguments. The first deals with deliberation and will and is reiterated in *Leviathan*:

> When in the mind of man, Appetites, and Aversions, Hopes, and Feares, concerning one and the same thing, arise alternately; and gives divers good and evill consequences of the doing, or omitting the thing propounded, come successively into our thoughts; so that sometimes we have an Appetite to it; sometimes an Aversion from it; sometimes Hope to be able to do it; sometimes Despaire, or Feare to attempt it; the whole summe of Desires, Aversions, Hopes, and Fears, continued till the thing be either done, or thought impossible, is that we call DELIBERATION. […]
>
> In Deliberation, the last Appetite, or Aversion, immediately adhaering to the action, or to the omission thereof, is that wee call the WILL; the Act, (not the faculty,) of *Willing.*[386]

Deliberation is the name of the chain of appetites, which themselves are motion initiated by fancies, which are caused by external objects, whose activity we are not able to manipulate,[387] and the will is the last link of deliberation. This is what Hobbes means when he claims that deliberation and will always have necessary causes. Freedom, however, comes from the fact that we are able, more or less, to regulate our passions and above all, to choose to do something or not. Inclinations and intentions, that is, '[a]ll other *appetites* to do, and to quit, that come upon a man during his deliberations', might change during the process of deliberation and human beings are free in that they 'hath not made an end of *deliberating*'.[388] In brief, we are free when it comes to our inclinations and intentions, but not in relation to will, and once we have acted our action is determined by certain appetites.

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[385] *Liberty and Necessity*, 240.

[386] *Leviathan* VI, 28. Cf. *Liberty and Necessity*, 245, 247, 254-5, 268-9, 273, and 275; and *Concerning Body* IV.25.13, 408-410.

[387] This is well-articulated in *Liberty and Necessity*, 274 ('Sixthly, I conceive that nothing taketh beginning from *itself* ... ').

[388] *Liberty and Necessity*, 273.

The second argument says that 'also voluntary actions are necessitated'.[389] This is so because a voluntary action is the action that follows from the will, that is, from the last appetite, which, as was shown, is always caused by appetites, and ultimately, by external objects. It is a matter of further debate whether, or to be precise, in what sense, we are free according to Hobbes. In general, there are two possibilities.

Freedom, says Hobbes, in *Liberty and Necessity*, '*is the absence of all the impediments to action that are not contained in the nature and intrinsical quality of the agent*.'[390] This statement has been taken as evidence that Hobbes's conception of freedom is negative, that is, that freedom is always freedom from external obstacles.[391]

Hobbes's statement on freedom may appear contradictory in relation to what he says about our knowledge. For if we do not have certain knowledge of external objects, does this not mean that we are not free at all? This is the traditional way to read arguments that deny freewill, and in the light of this we are not metaphysically free. We may be free in a sense, that we are free as long as we are ignorant of the real causes of our thoughts and actions and as long as we are ignorant of the metaphysical doctrine according to which everything in the world has its absolute cause. In what follows, however, I shall argue that Hobbes defends a conception freedom which leaves space for both reflection and chance.

Deliberation, as has been explained, depicts more correctly how Hobbes understands human motivation. We do have various urges, needs, desires and so on, but we also reflect upon them. It is not the case then that our bodily constitution determines what we do and what we think, for we are able to control ourselves. Here Hobbes's view moves toward what is some times called positive freedom, that is, freedom to act according to some self-imposed principles. These principles can be taken to refer to various things. For example, they can be universal and rational or general and emotive. The first option appears plausible. Hobbes can be taken to put forward a view that freedom lies in our understanding of our own intrinsic qualities and our acting according to this knowledge. In other words, by rational reflection we control the irrational traits in our character and live a secure and commodious life. This view, however, is somewhat problematic. If Hobbes is considered as a mechanical materialist and a determinist, freedom would now be reduced to the maxim that to be free is to choose one's own chains – a kind of pseudo-Stoic fatalism. This conclusion does not hold.

Hobbes indeed employs a desire-based model of the mind. Passions are what moves us, but then again it is not passions as such, or that we would be, to refer to Hume's famous and misquoted idea, slaves of our passions.[392] Like Hume later, Hobbes

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[389] *Liberty and Necessity*, 275.

[390] *Liberty and Necessity*, 273.

[391] Skinner (2002, Vol. III, Chapter 7) offers a perceptive discussion on the subject. For the original discussion of negative and positive freedom, see Berlin (1969 [1958]) and Constant (1988 [1820]).

[392] See Hume 1978, 415.

does not believe that we are doomed to search endlessly for the fulfilment of every fancy. The point of Hobbes's conception of deliberation is a general view shared by many of his contemporaries: that passions are not contrary to, but an integral part of the harmonious human flourishing and freedom.[393]

One more aspect of motivation needs to be discussed. Hobbes's analysis of irrationality is not restricted to his discussion of passions, but also covers his view of imaginations as harmful and as a capacity of the mind that needs to be harnessed by reason. This characterisation is not fully correct for three reasons. Firstly, to Hobbes imagination is not only or even predominantly a negative capacity of the mind. It plays a significant part in our rational life of the mind. Secondly, to claim that imagination as such is harmful is simply wrong. If we read Hobbes, it turns out that a peculiar form of imagination, namely vision or apparition, is harmful. As I shall try to explain below, this is not a philosophically interesting account. There is a more general feature that makes visions particularly harmful. Thirdly, and perhaps the central remark here, Hobbes's theory of motivation requires the conception of imaginary motivation. His explanation of action is tied to the idea that we are able to imagine things, and moreover, this bringing of things before the mind's eye is central in deliberation. The first one of these reasons will become clear as the discussion proceeds to understanding and language, but the latter two will be discussed here.

Visions, Hobbes explains with certitude, are typical of timid persons who spend too much time reading romances. Visionaries, we learn, are either already in a state of mental disturbance or at the edge of such a state. As an example of the latter, Hobbes refers to the story of Brutus who, just in the night before the battle of Philippi, is reported by historians to have had a vision.[394] Hobbes, however, does not swallow the standard interpretation. According to him, Brutus was anxious and the assassination of Caesar caused him great distress. In the middle of his turmoil he must suddenly have fallen asleep and then comprehended the dream he saw as a vision. Instead of shrouding Brutus's case in mystery, Hobbes gives a naturalistic explanation.[395] Beside this explanation, which sees Brutus's behaviour as a cognitive error, Hobbes studies visions from a different point of view, namely in respect to the question what causes them.

The first cause of visions is fear and anxiety, as is obvious in the case of Brutus. Another way in which visions arise is out of ignorance, which can mean two things. The first is that a person simply either has no grounds for his or her beliefs or that these

[393] On the substantive role of desires, see *Leviathan* III, 9 ('Where in there is no Passionate Thought ...') and VIII, 32-33 (quickness and slowness of imagination) and 35 ('For the Thoughts, are to the Desires ...').

[394] The story is told by many ancient historians. See, for example, Plutarch's 'Life of Brutus'in *Parallel Lives*, Vol. VI, 206-209.

[395] Hobbes's reasoning needs a clarifying remark. Hobbes actually reduces vision to dreams, which 'are caused by the distemper of some inward parts of the body', that is, by some motions of matter (*Leviathan*, II, 6). See also self-reflections in *The Verse Life*, 251.

grounds are somehow unsound. Superstitious persons, for instance, can be easily made to believe in ghosts, or fairies, or other non-bodily creatures. A similar kinds of phenomena to visions, prophecy and inspiration, for example, are clearly dangerous in political life. As a type of imagination, visions are, then, the most negative side of the phenomenon and, but even more importantly, vision and compounded imagination are rudimentary expressions of what Hobbes will later in the book label as private judgement. When seen from the point of view of the general line of thought of *Leviathan*, Hobbes's analysis of imagination is also an investigation of the philosophical origin of sedition.[396] The philosophical relevance of decaying sense is not trivial, but, quite the opposite, is essential.[397] The analysis of perversities of the mind helps us to understand how Hobbes understood the roots of political disorder.

The second meaning of ignorance is even more fascinating. Ignorance here refers to lack of knowledge of the functioning of our mind. A person is not able to explain his or her action because he or she does not understand the causes of it. When put into the context of the present theme, this means that a person is not aware of the efficient causes of passions and motivation. This knowledge, so Hobbes seems to think, is necessary for rational life and it consists of two general parts.

The rational self-understanding is based on the naturalistic or mechanistic theory of passions, but as was suggested above, the mechanistic reading of Hobbes's theory of motivation is insufficient. The theory stems formally from Hobbes's idea of life as motion, but when more complicated patterns of decision making and action enter into the picture, the mechanistic model shows its limits. A supporting reading was introduced. The psychological theory of motivation based on imagination does not only emphasise that motivation can be articulated in non-material terms, but opens a new viewpoint to Hobbes's theory of human nature. The imaginary nature of motivation brings forward the way in which we reflect upon our choices and actions.

The physiology and psychology of passions are the traditional parts of Hobbes's theory of passions. Other components are the self-understanding of passions and the semantics of passions.[398] Self-understanding simply means to understand the causes of one's actions and in this the semantics of passions is of some relevance.

Semantics of passions refers to the idea that language illustrates our attitudes, not the world as it is. This is especially true with passions. The meaning that a person can give to his or her passion may emerge from three sources. It can be purely subjective,

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[396] See *Leviathan* XXXII and XXXVI and, in particular, 196. Cf. Cantalupo 1991, 145 and Johnston 1986, especially 103. However, it must be emphasised that imagination is always double-edged. It can direct or mislead us. See especially the analysis of imagination as curiosity (*Leviathan* III, 9-10).

[397] Of an opposite allusion, see Gert (1996, 158).

[398] Hobbes actually adopts a method of generalisation on the basis of introspection, and states that this is the way to understand human nature. See *Leviathan*, 'Introduction', 2 ('that for the similitude of the thoughts, and Passions of one man, to the thoughts, and Passions of another ...').

purely social, or a combination of these. The next issue is to understand how the interpretation of passions as given by an individual and that given by others meet.

Hobbes adopts a dry and technical grammatical approach to talk about the forms of speech by which we express our passions. All passions 'may be expressed *Indicatively*; as *I love*, *I feare*', but some passions have particular forms.[399] Passions hardly ever make an affirmation, but when an expression contains a passion from which it proceeds, we may talk of affirmations. The particular languages of passions are subjunctive, imperative, optative and interrogative.

Subjunctive language expresses deliberation, usually with a supposition and one or more consequences. For example, 'If I take this apple, my friend will become angry' or 'If I take this apple, my friend will become angry, calls to police, and I will be in trouble'. Hobbes says that subjunctive language does not formally differ from the language of reasoning, but the difference is that the subjunctive language in reasoning deals with general names, whereas in passions it focuses on particular things and in this sense it is misleading to talk about reasoning, which, properly speaking, deals with general names.

The language of imperatives like 'Do love me!' or 'Do not pity me!' has three specific forms: a command, a prayer, and a counsel. Imperative language expresses a general desire and aversion. Optative language aims to catch such passions as vainglory and indignation, whereas the interrogative language considers the desire to know, for example 'Why so?'. Hobbes's discussion appears unconnected, but further scrutiny shows otherwise. There is a clear line of thought in his short account of language of passions. Firstly, it underlines the subjective character of passions. As known, though passions are the same for everyone, their objects are not, and this causes the subjectivity of passions. Hobbes's analysis of different ways of expressing passions is a way to systematise the matter. Secondly and more importantly, the short reflection may be seen as part of Hobbes's account of introspection and deliberation. By verbalising emotions, an agent is able to get a more precise picture of his or her inner motions and express them to others.

Languages of passions are forms of speech and as such they can be classified as reasoning, but only in the remote sense referring to deliberation on the basis of particular emotional states. Hobbes denies this because of the volatile character of passions, but adds that the best signs of passion are more natural, that is, 'the countenance, motions of the body, actions, and ends, or aimes, which we other know the man to have'.[400]

To conclude, like, say, with dreams, Hobbes adopts a naturalistic explanation of passions, but as elsewhere in his theory of human nature, this is only one element of his account. A way to show that this is the case is to give counter-examples that show that

[399] *Leviathan* VI, 29.

[400] *Leviathan* VI, 29.

the naturalistic explanation of passions is just a part of the explanation even by Hobbes himself. In what follows, I will concentrate on two such examples: religion and good and evil.

In a long list of passions in Chapter IV of *Leviathan* Hobbes summarises the religious feelings of human beings as follows: '*Feare* of power invisible, feigned by the mind, or imagined from tales publiquely allowed, RELIGION, not allowed, SUPERSTITION.'[401] If this would be all Hobbes says about the subject, the popular image of Hobbes as an ironic intellectual on the questions of faith and devotion would be correct.

First of all, it should be pointed out that Hobbes is following a long tradition of religious criticism, though to originate the Greek poet Xenophanes (ca. 6th century BC). Hobbes repeats the tradition's central idea of religion as an (irrational) projection of human feelings, especially fears. Secondly, Hobbes seems to propose that religion is something fictive. The crucial part of the passage, however, comes immediately afterwards, namely that these fictions are sometimes publicly permissible and allowed by authorities. This implies that no matter how critical and reflective some members of a community might be, there will be always those who follow these tales. Hobbes is not here necessarily anticipating the modern materialistic and historical critique of religion, but is simply pointing out the obvious: religion is a part of organised communities and that, on the basis of historical knowledge, religion necessarily exists in all societies. Even the definition of superstition is a descriptive one and should be detached from any normative interpretations about the general nature of man's belief in supernatural things.

Another flaw in the image of Hobbes as an ironic atheist is his proposal that there might well be some ground to religious beliefs. This is what he calls true religion, in which 'the [invisible] power imagined, is truly such as we imagine'.[402] This should be read in the light of Hobbes's voluntaristic view of God as '*Incomprehensible*, and his greatness, and power [...] unconceivable'.[403] This voice of reason, which says that human beings are never able to understand the omnipotent nature of God, does of course in a way restrain them from trying to do this. I believe, moreover, that Hobbes saw nothing particularly strange in this. Religion may well be a fiction, but a useful and, above all, successful one.

The internal relevance of the example (that is, its relevance for Hobbes's philosophy and, in particular, in this theory of passions) is, hopefully, more significant. Such passions as religion, vainglory, and shame as well as Hobbes's analysis of them demonstrate that he did not see motivation only in mechanistic, physiological terms, but instead as a more reflective and above all social and linguistic construction. Human

[401] *Leviathan* VI, 26.

[402] *Leviathan* VI, 26.

[403] *Leviathan* III, 11.

beings are able to become convinced of most fantastical things, but then again are also able to overcome these fantasies by the use of their cognitive capacities.

The second example is Hobbes's conception of good and evil. In *Leviathan*, Hobbes gives the following definition: 'But whatsoever is the object of any mans Appetite or Desire; that is it, which he for his part calleth *Good*; And the object of his Hate, and Aversion, *Evill* […] For these words of Good, [and] Evill […] are ever used with relation to the person that useth them.'[404]

There is the standard interpretation of this definition and it is sometimes used as evidence that Hobbes is a moral subjectivist.[405] If this were all that Hobbes says about the matter, then the conclusion might be right, but there are three counter-arguments.

The first counter-argument is based on what Hobbes says about Greek philosophy (or rather about their ethics, to be precise) at the end of *Leviathan*:

> Their Morall Philosophy is but a description of their own Passions. For the rule of Manners, without Civill Government, is the Law of Nature; and in it, the Law Civill; that determineth what is *Honest*, and *Dishonest*; what is *Just*, and *Unjust*; and generally what is *Good*, and *Evill*: whereas they make the Rules of *Good*, and *Bad*, by their own *Liking*, and *Disliking*: By which means, in so great diversity of tastes, there is nothing generally agreed on; but every one doth (as far as he dares) whatsoever seemeth good in his owne eyes, to the subversion of Common-wealth.[406]

This statement puts, to say the least, the subjectivist reading in a strange light.

The subjectivist reading, then, is based on Hobbes's claim that given that what comes to good and evil there is 'nothing simply and absolutely so' and therefore it is not possible to deduce good and evil 'from the nature of objects themselves'.[407] But as already mentioned, by this Hobbes means that we are not able to find any objective normative order from the (physical) world. Instead, values (what is considered good and evil) are determined by individuals (in the natural state) or by a sovereign (in the civil state).[408] There might well be some widely applicable moral truths, but only some of them are universal. For example, a sharp knife is good for cutting meat, except the meat in question is my finger. A moral subjectivist would have to admit that hurting oneself is a good thing. This takes us to the second objection.

The second objection is based on a distinction of some importance, which Hobbes draws, namely the one between real and apparent good. According to Hobbes, we have two kinds of desires, rational and non-rational, and these are divided by the help

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[404] *Leviathan* VI, 24.

[405] The claim is problematic. Assuming that people take their personal judgements as values, it would not follow that values are reducible to such judgements.

[406] *Leviathan* XLVI, 369-370.

[407] *Leviathan* VI, 24.

[408] See also Malcolm (2002, 30-33).

of the principle of self-preservation. This distinction makes it possible for Hobbes to claim that there are some universal claims in moral and political philosophy. In Hobbes's vocabulary, the conceptions of rational and non-rational desires correspond to the notions of real and apparent good. Further on, the idea of rational desires applies with grown-up, sane adults, and includes education and the conditions in which a person has grown up. These have, according to Hobbes, a crucial impact on what kind of person one is.[409]

Hobbes's definition of good and evil is revealing. It is not so much concerned with morality as with (moral) psychology. He sees passions as essential to motivation, but at the same time emphasises their whimsical nature. Good and evil vary from person to person and within a person, and do not, necessarily, form any consistent order. I may love a glass of port tonight, but hate a glass of port tomorrow morning. Respectively, it is easy to point out how our appetites, desires and aversions, concerning food, drink, music, people and so on differ from time to time and person to person. It is important to note that subjectivism is tactical by nature. Hobbes's lively words on the unavoidable subjectivism of human beings come close to the trope of hyperbole, whereas the salient point to notice is that it is not the object of desire and aversion, but a person's or persons' valuations of something which is, if we are to believe Hobbes, the prime mover, and, above all that human beings are able to overcome their subjectivism.

Conclusions to this chapter are postponed for the following reason. Though the psychological level of Hobbes's theory of human nature is fascinating, the distinctive feature is the role that language plays in this theory. Aspects of this role will be discussed in detail in the chapter to come, but as an introductory remark it is worth remembering the third role imagination plays in Hobbes's theory of human nature is that it explicates the workings of the mind. In Hobbes's text, this role is referred as the capacity of understanding peculiar to human beings. Here, if anywhere, the difference between brutes and humans becomes clear: we do have the capacity for introspection, but only because we have language.

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[409] *De Cive* 'Præfatio ad lectores', 81. The original Latin expression is 'disciplinâ atque damnorum experientiâ'. In *On the Citizen* ('Preface to the Readers, 11) this is translated 'discipline and experience of harm', whereas the 1650 translation by poet Charles Cotton (1630-1687) speaks of 'good education and experience' (*EW*, II, 'Preface to the Readers', xvii. On translation, see Malcolm, 2002, Chapter 8). The former is more exact, but the 17th-century translation is not totally wrong, especially if we see it in the light of Hobbes's own life. His early education under the tutelage of Robert Latimer had a strong impact on young Hobbes. Secondly, a matter that scholarship seems to forget is that Hobbes himself was a tutor. This can be seen as support for his trust in the power of education. For a short but concise view on the role of education in the early modern England, see Malcolm 2002, 1.

IV UNDERSTANDING AND TWO THEORIES OF LANGUAGE

The natural analysis of the mind is insufficient when trying to understand Hobbes's view of the mind. A complementary discussion on the role of language is necessary for without language the coherence of our thinking stays at a modest level. In *Critique du 'De Mundo'* Hobbes makes the following claim: 'intellectio ergo non ipsarum rerum, sed orationis et vocum est, quibus sententiam nostram circa res significamus'.[410] On the basis of this, to perceive is to understand words and their proper definitions and how these link to those thoughts that we take to correspond with the things in the world. There then seems to be a link between the world, the mind, and language, but it is indirect. Various questions and problems related to this link are the topic of the chapter in hand.

A closer look at the relevant chapters of Part I of *Leviathan* and corresponding parts in other works form a network of ideas of Hobbes's view of verbal discourse, or, simply put, language.[411] Hobbes analyses verbal discourse principally from two points of view: uses and names. This corresponds roughly with the two conceptions of language he held.[412] One describes our everyday use of language, while the other is an attempt to give a philosophically plausible account of different elements of language. The latter clarifies the former. In brief, Hobbes had a coherence-based theory of meaning that deals with scientific language and a communication-based theory of meaning that deals with ordinary language.[413] He studies not only the static, but also the dynamic dimension of language.

In my discussion I shall follow the pattern of Hobbes, that is, after introducing the notion of understanding, I will move on his analysis of the pragmatics of language, or simply, speech, and only after this to his more theoretical reflections, such as his theory of names and propositions. Last, I will ponder the much vexed issue of meaning in Hobbes's philosophy of language.

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[410] *Critique du 'De Mundo'*, 126.

[411] I follow here Chapter IV of *Leviathan*. Parallel discussions can be found in *Elements* Chapter V and *Concerning Body* I.II, but equally important is his *Critique du 'De Mundo'* (see especially IV.2, V.2 and XXX.16).

[412] As Ross (1987) duly notes, confusing the two leads not only to a fantastical, but also to a misleading interpretation of Hobbes's conception of language. For this kind of reading, see Hungerland and Vick (1981).

[413] Compare to Ross (1987, especially 46-47). Scientific language is articulated in *Concerning Body*, whereas *Leviathan* gives an account of ordinary language.

SPEECH

Chapter IV of *Leviathan* opens with a reference to the invention that had shaken Europe some 200 years before: 'The Invention of *Printing*, though ingenious, compared with the invention of *Letters*, is no great matter [...] But the most noble and profittable invention of all other, was that of SPEECH'.[414] This statement mirrors Hobbes's priorities. To him, language is primarily spoken language, that is, language as it is used.

This is not a new preference, but one usually addressed to Plato's dialogue *Phaedrus*, which among other things discusses the invention of letters and how the written word affects intellectual capacities.[415] In the story told by Socrates writing was invented by Theuth (that is, Ibis), the Egyptian god who also invented numbers and calculation. Theuth offered the secret art to the King of Egypt who refused it on the basis that it will only 'implant forgetfulness to their [people's] souls'. The king Thamus (that is, Ammon) also pointed out that Theuth's invention was 'a recipe not for memory, but for reminder [...] for by telling them of many things without teaching them you will make them seem to know much, while for the most part they know nothing, and as men filled, not with wisdom, but with the conceit of wisdom, they will be a burden to their fellows.' Socrates's more theoretical point is that the written word is inferior to 'living speech' and 'the written discourse may fairly be called a kind of image' of it. Additionally, written works are not self-explanatory in the same sense as actual dialogue and therefore they are susceptible to incorrect interpretations.

It is instructive to compare Hobbes's views of language to the ideas Plato discusses in *Phaedrus*. This is not so much in terms of the historical influence (though we may assume that Hobbes was familiar with the text) but thematically. First, Hobbes was a good conversant and preferred the oral exchange of ideas. Aubrey, for instance, writes: 'The Lord Chancellor Bacon loved to converse with him' and that when Hobbes spent time in the Cavendish London residence in the 1650s, he had the 'convenience not only of books, but of learned conversation' and when in Derbyshire though there was a great library, 'the want of learned conversation was a very great inconvenience'.[416]

Second, also in his theoretical stance Hobbes's views are not dissimilar from Socrates's idea that a written work is useless in its ability to teach and liable to misinterpretation. His mockery of the dead language of School-men is an example of this.

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[414] *Leviathan* IV, 12.

[415] What follows can be found from *Phaedrus* 275a-276a.

[416] *Elements*, 234 and 236. Bacon's fondness for Hobbes as a conversant may be based on Hobbes's ability to register the thoughts of the Lord Chancellor.

Though Hobbes appears to prefer spoken to written language, his theory of language is more complicated. The first issue that calls for attention is the relationship between thought and word. This is found in Hobbes's analysis of understanding.

UNDERSTANDING

By understanding Hobbes primarily means the understanding of words.[417] For example, the words '*in hoc signo vinces*' raised the idea of victory in Constantine. The definition of understanding as imagination raised in a living creature by words or other voluntary signs is complemented by the following specification: '[u]nderstanding not onely [of the speaker's] will; but his conceptions and thoughts, by the sequell and contexture of the names of things into Affirmations, Negations, and other formes of Speech'.[418] There is, then, understanding which is typical of creatures with the capacity of speech, that is, with the capacity to form complex expressions. In the terminology adopted in the previous chapter, understanding may also be defined as linguistic conceivability.

In Chapter IV of *Leviathan* Hobbes redefines the concept of understanding not only in a way that supports the primacy of language, but also so that we are able to see how the pre-linguistic and linguistic intertwine in his philosophy:

> When a man upon the hearing of any Speech, hath those thoughts which the words of that Speech, and their connexion, were ordained and constituted to signifie; Then he is said to understand it; *Understanding* being nothing else, but conception caused by Speech.[419]

The definition has two aspects, material and semantic. In a certain sense Hobbes thinks that speech is material, namely that speech is sound waves that cause certain effects on us.[420] The procedure is similar to that of perceiving a piece of wood. As the colour, shape and other qualities of the piece of wood raise a certain imagination, the same happens when hearing a certain sound. Furthermore, repetition creates the connection between certain sounds with certain phantasms. For example, saying the word 'cross' brings to the mind the imagination of two pieces of wood tied together with string or some other phantasm of a cross. This is, however, the explanation given to hearing, one of our natural capacities. Again, naturalistic analysis does not carry us very far, but equally it is not the materialistic account of speech that is problematic when explaining

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[417] Again the counter-example by Peleau and Hobbes's 'reply' are illuminating. See (respectively) *Correspondence* (Letter 95, 330 and 332, and Letter 202, 767).

[418] *Leviathan* II, 8. This can of course merely mean that, as in the case of the cause of sense, an understanding of voluntary signs 'is not very necessary to the business now in hand' (*Leviathan* I, 3). See, however, Ross 1987, 45-6.

[419] *Leviathan* IV, 17. Cf. *Elements* V.8, 37 and *De Homine* X.1, 88-89.

[420] *Elements* V.1-2, 34-35.

how sounds can raise conceptions in us, but two related issues: how do words get their meanings and in what way is Hobbes's materialistic account compatible with the other things he says about language and meaning. The central issue is to explain how understanding synthesises experience and how it changes it.

It is not the case that understanding links things on the basis of their similarity and dissimilarity to each other, because this is done by sensation and memory. However, there is another, more sophisticated form of comparison that is possible through understanding.[421] The difference is in how we comprehend a thing with and without language. Put simply, the difference is that when we have language we can make universal claims about things, but when there is no language we can only make more or less reliable generalisations about things.

The second, and consequent, problem is that when Hobbes says that nothing but imagination is needed to use universal names, what does he mean by this? The claim needs to be put into its context. It should be seen as the refutation of intellect or other similar higher capacity that was common place in the earlier philosophy of mind. Secondly, the claim about the use of universal names means understanding finds and conveys from the memory things to which a name refers, for example, all dogs which I have sensed, but this is not the only thing it does, because if were the case, then the set of things would be limited, because memories relate to always something in the past. Therefore understanding also links new occurrences to the appropriate set of past phantasms, which sets are again infinitely open and in this sense imagination is more active and diverse than memory. What needs to be explained next is how understanding links new occurrences. My suggestion is that this is done by a regulated train of thought.

To be more exact, understanding utilises the second type of train of thoughts Hobbes discusses in *Leviathan*, namely that in which we imagine 'any thing whatsoever', or as this is also called, 'curiosity'.[422] The idea is that we study the meaning of words in relation to our experience and if a certain occurrence of word is in accordance with our experience, we store the word in our vocabulary. Though this rudimentary form of invention serves as a model of how understanding operates and it is also possible to apply it in the case of words, it does not explain how we learn language or how mere voices are transformed into meaningful expressions – these will be discussed in detail later. Nevertheless, it is worth keeping in mind that though a regulated train of thought plays a role in the acquisition of language, Hobbes is unclear how this exactly happens. In *Elements*, he clarifies the matter little:

> we cannot from experience conclude, that any thing is to be called just or unjust, true or false, nor any proposition universal whatsoever, except it be from remembrance of the use of names imposed arbitrarily. For example: to have heard a sentence given (in the like case the like

[421] Hobbes talks about division and addition in *Critique du 'De Mundo'* II.2, 109.

[422] *Leviathan* III, 9.

> sentence a thousand times) is not enough to conclude that the sentence is just (though most men have no other means to conclude by); but it is necessary, for the drawing of such conclusion, to trace and find out, by many experiences, what men do mean by calling things just and unjust, and the like.[423]

Hobbes is alluding here to the fact that although experience can help us to understand word, the conclusion is problematic, because he also holds that 'experience concludeth nothing universally' and 'there is nothing universal but names'.[424] One conclusion could be that he took language as something that by definition transcends experience, but I shall return to this in the following sections.

THE USES AND ABUSES OF SPEECH

In *Leviathan*, after sketching the two main phases in the history of language, Hobbes takes a more analytical point of view and turns to explain the uses of speech. This classification is important for his philosophy. The general use of speech is to transfer our mental discourse into verbal discourse. This translation has two advantages.[425] The first is the ability to memorise, and these inner voices Hobbes calls '*Marks*, or *Notes* of remembrance'. The second advantage is when we use the same combination of marks to express to each other different things such as matters of fact, opinions and desires, when we speak of signs.[426]

More specifically, speech has four special uses and four corresponding abuses: the registering of causes and effect, or the acquisition of knowledge (arts), and the emulation of arts or deceiving oneself; counselling or teaching and using words equivocally, or misleading others; declaring one's will to others and declaring something that is not our will; delighting oneself and others with the innocent use of words and hurting others with words or insults.

Some of Hobbes's remarks can be supported. The first use and abuse of speech belongs, at least partly, to mental discourse, whereas the rest are related to interaction for they need both a speaker and a listener. Secondly, the discrepancy between mental and verbal discourse appears to be central, but what is the decisive criterion that makes speech proper or improper? First of all, the misuse of speech is secondary to its abuse.

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[423] *Elements* IV.11, 34. Though the word 'sentence' refers to the specific legal meaning of the term, the principle applies generally (see, editor's note in *Elements*, 267).

[424] *Elements* IV.10, 33 and V.6, 36. Cf *Leviathan* IV, 14 and *Concerning Body* I.2.9, 20..

[425] Elsewhere Hobbes used a different division, though in relation to history. *Critique du 'De Mundo'*, 106-107. See also Schuhman (2000, especially page 6.)

[426] See also the preliminary definition in *Leviathan* (II, 22). With respect to a mark and a sign, we may ask: is the distinction analytical or of some other kind? I tend think that it is analytical. For we do develop our vocabulary in interaction with the outside world and other people. Nevertheless, at least in scientific language, marks appear to be prior to signs.

That a person may use language incorrectly because of incompetence, say, because the person is not familiar with the finesses of the punctuation of English, should be distinguished from the political agitation. This implies that to Hobbes speaking is conscious and voluntary. Consequently, the abuse of speech is deliberate and the matter can be analysed in relation to truth.

In the first use and abuse of speech, truth appears to be something different from that found in the rest of the uses. Truth here is based on conceptual analysis, to some method of imposing names and, further, to creating a language in order to communicate with oneself. That is to say, the first use of speech is to produce a coherent and understandable system of concepts for oneself. And the opposite, abuse is to create an order which for some reason or another is not coherent or understandable even to the person himself. Here lies a dilemma. It is assumed that the initial creating of a conceptual system is purely internal and is based on the functioning of the mind as I analysed earlier. However, the system in which a person describes the functioning of his own mind to himself, so Hobbes seems to think, cannot be based on purely internal criteria. To conclude, the first use and abuse of speech that appears to represent private language formation is dependent upon (in one way or another) how we understand the other uses and abuses. The analysis of truth with respect to them is therefore necessary.

The second and the third use imply a certain correspondence between thought and its expression. The second use and abuse form the basis of the analysis of truth. To counsel and to teach is to explain things as truthfully and clearly as possible.[427] The equivalent abuse is the opposite, to mislead with words. Eloquence and scholasticism, with their confusing languages are examples of this. To mislead with words is for Hobbes (at least in this particular class of language use) reprehensible. But the question remains: what makes an expression misleading or not?

From the opposite point of view, it may be proposed that an unambiguous expression is a true expression. Unambiguous expressions can be generated in two respects: like in the first use of speech, they can be created internally and externally. Here the hierarchy between mental discourse and verbal discourse becomes evident. The verbal dominates the mental and here some common vocabulary based on shared meanings is assumed. Consider the example, two persons disagreeing on something, say, what is the best form of government. Presume also that we know that person A has a more elaborate view than person B. To be able to convince B, A has to use notions and conceptions that B will understand, no matter how subtle A's own vocabulary is.

[427] The analysis of the second use and abuse will continue later. In Chapter XXV of *Leviathan*, titled 'Of Counsell', Hobbes says that the difference between a counsel and a command lies in the fact that the former is always given in order to benefit one who is counselled, whereas the latter is pronounced to one's own advantage. The similarity here is that persons who use words equivocally, rhetorically seek their own advantage. The point is also salient in relation to the fourth abuse and the notion of command it contains. The solution is that the sovereign always looks for the advantage of whole commonwealth and, from Hobbes's point of view, this overrides other factors.

However, what has been explained here is a truism: if we use words inconsistently, we do not understand each other or even ourselves. But the point lies elsewhere. It is not only the case that we must be coherent when using words, but that even if we think that we are coherent when using words, we do not decide this fully by ourselves. From this follows a problem: external coherence can clash with internal coherence. The use and abuse of speech can operate on both levels, individual and communal, and the latter is more powerful. Therefore, it is not some kind of naturalistic criteria how the world is or some perennial, eternal truths of reason that direct the formation of language according to Hobbes, but a linguistic community.

The third use and abuse bears a resemblance to the second, although, the situation is more complicated. In the second instance use and abuse was relevant to the relationship between thought and word. In the third instance this correspondence is secondary, albeit, necessary, and the primary relationship is between word and intention. Although these two relationships have similarities, for example, the idea of misleading, the difference lies in interpretation. A person might be convinced that he declared something to be his will when the other person interpreted the will to be something else, and, ultimately, the latter decides whether or not the person declared his or her sincere will. Of course, one person can start to argue whether the interpretation of others is correct, but here we are already moving toward the case of the second use and abuse. The difference in the third use and abuse case, then, is the growth of social control.

To conclude, the second use and abuse of language are the essence of Hobbes's theory of pragmatics of language, for there two salient points are introduced. The first is the principle of constancy, which simply says that in order to have communication people must use words in a coherent and consistent way. The second is the idea that communal or social coherence is more powerful than individual. An individual does not decide whether or not he is right, for it is the linguistic community which makes the final decision. The individual can, however, try to convince others. From this it does not follow that language is totally socially determined according to Hobbes, but, as becomes evident, his theory of names offers an instrument for rational and critical reflection.

LANGUAGE

In the above discussion the word 'language' has been used in a general sense. The word, however, has a more specific, technical meaning, which refers to the view that language is an object of intellectual activity. Though already Plato showed an interest in this (see especially *Cratylus*), the scientific study of language and especially of old texts started to flourish in Renaissance thought when the philological and historical study of language

became central.[428] Hobbes's practice, above all his Biblical criticism, demonstrates that he could have been influenced or at least aware of this sort of study of language, but predominantly his theoretical ambitions here are more that of a philosopher and are based at least equally on the Medieval logical study of language as on a Renaissance way of studying language.

Another commonplace in the topic Hobbes and language has been that scholars have concentrated on the theoretical questions in his account of language. Hobbes has also been used to support fashions of modern-day philosophy of language. In the 1950s, his theory of language was considered to be an attempt to provide a physiology of speech, and it was claimed that 'Hobbes anticipated modern techniques of logical analysis by supplementing the demand for clarity and concreteness of speech by a theory of absurdity'.[429] The 1960s introduced Hobbes as the inventor of performatives, a trend that found its climax in the introductory essay to the new translation of the Part I of *De Corpore*, where Hobbes is put into a dialogue with such modern philosophers of language as Grice and Carnap. The exact nature of these interpretations is the matter of the coming pages, but here a general remark will suffice. As fashionable interpretations show, Hobbes's account of language is indeed versatile, but then again in the midst of theoretical subtlety a simple thing tends to be forgotten. Namely that the practical and theoretical sides of language are in a certain specific relationship in Hobbes. His view is summarised in the following passage, where speech is understood as:

> *Names* or *Appellations*, and their Connexion; whereby men register their Thoughts; recall them when they are past; and also declare them one to another for mutuall utility and conversation; without which there had been amongst men, neither Common-wealth, nor Society, nor Contract, nor Peace, no more than amongst Lyons, Bears, and Wolves.[430]

The relationship is then simple: we need a scientific, philosophical analysis of our language to maintain both, political and intellectual order. Theoretical reflections on the nature of language relate more to the latter than to the former.

NAMES

To Hobbes, a name is an elementary unit of speech that signifies our conceptions, not things of the outside world, and is mainly used to express these conceptions to others,

[428] This is of course a generalisation for Renaissance scholars had their models, for example, the Greek and Latin commentators. On Renaissance linguistic scholars and their predecessors see Gilbert (1960) and the standard work by Reynolds and Wilson (1991).

[429] Peters (1967, 128, for the physiology claim see page 112).

[430] *Leviathan* IV, 12. The primacy of the spoken word or of speech is also evident later in the same chapter (page 16) where Hobbes considers the Greek term *logos*. What I discuss from hereon is based on Chapter IV of *Leviathan*, but only exact quotations will be indicated.

when it is called sign. Secondly, as already mentioned, when used in our inner discourse as a mnemonic device, names are called marks.[431]

Names can be of various kinds and Hobbes goes through a long list of them, which though they not be repeated here.[432] The central idea, among the '[t]he writers of *logic*',[433] is that we categorise or predicate things under different labels starting from the most common kinds of names, like body, and proceeding to individuals, like Socrates. Any system of names is, Hobbes claims, a heuristic list. The reason why Peter belongs to the genus of body is that bodies are divided, first, into animated and unanimated bodies, then, living and not living, and, thirdly, into man and not-man, and, finally, into Peter and not Peter.[434] But to claim 'that as names, so the diversities of things themselves may be searched out and determined by such distinctions' is not correct.[435] Hobbes agrees with Aristotle that to take nomenclatures as such to reflect an absolute order of reality is not convincing.[436] What Hobbes has in mind is that the same word can have different meanings in different contexts. For example, if person A takes light to be the movement of a particle and puts it under the category of body, and the person B considers it to be a wave and puts it under some other category, we cannot on this basis say, which of these is the correct one.[437] The decision which of the competing conceptual systems is the correct one is 'to be done only by arguments and ratiocination, and not by disposing of words into *classes*', for, Hobbes adds, he has 'not yet seen any great use of the predicaments in philosophy.'[438]

Hobbes's theory of names is systematic and follows conventions of later scholastic philosophy of language. Names can be proper and singular, like 'Peter', or common, universal, like 'man'. Proper names are as single imaginations, intuitively clear and unproblematic, but universal names need further characterisation. A universal name refers to a set of particular things and 'is imposed on many things' because of 'their

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[431] *Concerning Body* I.2.1-4. Cf. *Leviathan* IV, 13. The point on the arbitrary nature of marks is repeated in *Concerning Body* I.2.5.

[432] These include positive and negative (7), contradictory (8), common (9), names of the first and second intention (10), universal, particular, individual, and indifferent (11), equivocal and unequivocal (12), absolute and relative (13), and simple and compound (14) names. Numbers in the brackets refer to the articles in *Concerning Body* I.2.

[433] *Concerning Body* I.2.15, 25. The idea comes from Aristotle and his *Categoriae*. This practice is sometimes referred to as the Porphyrian tree. See, for example, Stump (2003, 224-5).

[434] *Concerning Body* I.2.15, 25.

[435] *Concerning Body* I.2.16, 27.

[436] *Concerning Body* I.2.16, 28

[437] Cf. *Concerning Body* I.2.16, 28 ('Fourthly, I would not have […]').

[438] *Concerning Body* I.2.16, 28.

similitude in some quality'.[439] Whereas a proper name brings to mind only one thing, a universal name brings up any number of things that fall under it. It is also so that universal names vary in degree. That is to say, some names are more universal than others. Hobbes's examples are the term 'body' whose extension is wider than the term 'man', and 'man' and 'rational' which have equal extension, but different intension.

The set of scientifically appropriate names is determined by something I call the restriction principle. The principle says that '[w]hatsoever we imagine is *Finite*' therefore '[w]hen we say any thing is infinite, we signifie onely, that we are not able to conceive the ends, and bounds of the thing named'.[440] The things that can serve as names must then be accountable, that is, finite. These positive names can be accountable in four respects. In respect to matter or body, for example 'living' and 'hot' and they refer to what there is, to reality. The next type of names is abstract names and they are abstract because they are 'severed (not from Matter, but) from the account of Matter'.[441] Abstract names are qualities or accidents, such as 'being living'. According to Hobbes, it is possible to construct a name that stands for an accident, for example, from 'being living' we can interfere the name 'life'. Accident or property have one special use, with the help of them we are able to distinguish one body from another.

The final two classes of positive names have different characteristics. The third class deals with 'the Properties of our own body'[442] and these are called fancies (that is, conceptions). The last class contains names of names and names of speech. These include such names as 'general', 'universal', 'interrogation', 'syllogism', and 'sermon'.

The essential feature of positive names seems to be that they have some relation to reality. However, this idea is misleading for Hobbes was a nominalist and to him names do not signify things, but conceptions of the mind. Therefore reality understood as the world outside a sentient has little to do with our view of reality. The 'real' should be understood here somewhat loosely. Hobbes merely refers to the idea that it is supposed

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[439] *Leviathan* IV, 13. It is likely that Hobbes's ideas here borrow from some classical sources like Euclid and Aristotle and their ideas of common notions. For an interesting reflection on the former, see Serjeantson (2001).

[440] *Leviathan* III, 11. See also what Hobbes says of infinite and finite things in *Critique du 'De Mundo'* II.2-8, which contains clear-cut definitions of both. It is also relevant to note that though we think something is infinite, this does not necessarily correspond with how things are in the world. Thirdly, the question of infinity or eternity cannot be resolved by referring to God's will. Infinity does not mean that the world does not have boundaries, but that the boundaries of the world are infinitely remote from us. Chapter XXVII, article 1 is also useful. Here Hobbes suggests that there is another conception of the infinite, namely the potentially infinite, which means that we can imagine a space that is infinite; however, to claim that this is real is similar to an astronomer's invention of a sphere which again is similar to a poet's invention of what came before the world and, article 6 in the same chapter, where Hobbes refers to the association between infinity and eternity and religion. He concludes that things would be much easier if it could be agreed that infinity is uncountable.

[441] *Leviathan* IV, 16.

[442] *Leviathan* IV, 16.

that a kind of thing that the name signifies stands for something, namely to fancies or conceptions caused by external bodies.

Negative names also signify something, namely absence. The fundamental negative name is *no thing*, but also such a name as *infinite* is negative. Negative names cannot serve as the basis of reckoning (that is, as axioms), but they have a special function in the process of definition for they correct it. But they are not, properly speaking, names for they do not stand for something.

Besides positive and negative names, there are two classes of names: insignificant and inconstant names. The first class divides into two subclasses. The first subclass of insignificant names is typical to 'Schoolemen, and pusled Philosophers', and names like 'hypostatical' or 'eternal now' belong to this category.[443] The second type of insignificant names are a combination of names in which the combining makes a name contradictory or inconsistent. Examples of such names are 'incorporeal body' or 'living dead'.

Inconstant names cannot be the basis for reasoning because they differ from person to person, time to time, and place to place; in short, they are context-sensitive expressions. For example, I may call my friend today wise and clever, but tomorrow cruel and stupid, depending on my humour or on his behaviour. Inconstant names are too closely determined by particular affections and prejudices that they could be used in the reckoning and definition process. Metaphors and tropes are also excluded.

When the division of names is given it could be easy to conclude that here we encounter the limitations of scientific language. If a name does not qualify, it is not to be included in our syllogisms. Although, as has been pointed out, Hobbes explicitly rejects this solution, obscurities still remain. The restriction principle tries to explicate Hobbes's idea of meaning, but only on a general level. Equally tentative was my idea that the linguistic community has a role in the formation of meanings. Both views, it turns out, have some truth in them.

MEANING

Beside the use of speech and names Hobbes also touches upon a few other elements of language. One is the mechanism of language by which many names are brought under one word (stipulation). As an example of this determining of meanings he mentions that all the words '*Hee that in his actions observeth the Lawes of his Country*' are the

[443] *Leviathan* IV, 17 and V, 21. See also Chapter VIII (39-40), where insignificant speech is taken to be a sort of madness. Immediately after this Hobbes discusses'questions of abtruse Philosophy' and Suarez's *De Concursu Motione et Auxilio Dei*. Note that throughout the work examples of these empty names are given. The examples here are random choice. For a more detailed account how insignificant names are built, see Hobbes's list of causes of absurdities in *Leviathan* V, 20-21.

equivalent of one word, '*Just*'.[444] Another element is a distinction between reckoning with numbers and words. The latter is not so evident as the former and more importantly: 'without words, there is no possibility of reckoning Numbers' or any subsequent reckoning.[445] The point is consolidated later when Hobbes says that reasoning without speech is not possible, but speech without reason is.

Theoretical problems in Hobbes's notion of language consider the relationship between a name and a thing and the relationship between mental and verbal discourse.[446] Mental and verbal discourses appear to be one and the same thing, which just serve different functions.[447] On the other hand, a practical problem here is how to distinguish between hallucinatory and clear discourse.

Hobbes seems to believe that names come out of nothing. Though he repeats the story of the Biblical origins of language, he adds that this perfect language was lost and, after all, we can't 'find any thing in the Scripture, out of which, directly or by consequence can be gathered, that *Adam* was taught the names of all Figures, Numbers, Measures […and] much less the names of Words and Speech, as *Generall*, *Speciall* […] and least of all [such words as] *Entity*, *Intentionality*, *Quiditty*, and other insignificant words of the School'.[448] Therefore, the better answer would be that names come from the community.[449] This is not a fully correct view and in order to show why this is so, some rival arguments of Hobbes's theory of meaning need to be reconsidered.

Hobbes's notion of language has, because of the implicit idea of convention, a collective element. Names are conventions and Hobbes's theory of meaning is based on the idea that it does not matter what combination of signs we attach to things as long as everyone knows what properties and consequences a name has.[450] An example is the notion of God. According to Hobbes 'God' is a name that refers to the first and eternal

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[444] *Leviathan* IV, 14. Losonsky (2001, 50-51) offers a short but insightful discussion of these 'silent geometricians'.

[445] *Leviathan* IV, 14.

[446] Herbert (1989, 74-83). See also Funkentein (1986, 52ff), who refers to the distinction between meaning and signification. The Aristotelian doctrine says that words refer to or name objects, but acquire their meaning through the mediation of concepts (see *De Interpretatione* 163a3-9 and *ST* I.q.13.a.1). Additionally, a concept represents an object which it is the concept of by virtue of its resemblance (*similitudo*) to the object.

[447] For the idea that language is an external manifestation of memory, see *Concerning Body* I.II.1, 13-14.

[448] *Leviathan* IV, 12.

[449] The direct evidence here is scarce. For some evidence, however, see *Elements* XII.8, 76.

[450] *Leviathan* XXXI, 192. Cf. *Leviathan* V, 18-19. Compare this to what Martinich (1999, 113) writes: 'Declaratives are true in virtue of the institutional facts they create, not natural ones'.

cause of all beings. It is not important whether or not this kind of thing exists, what is essential is that people use the name 'God' in the mentioned sense.[451]

There are three ways in which Hobbes's theory of meaning and more broadly his account of language have been interpreted: causally, conventionally, and through the idea of communication.[452] The causal theory says that the meanings of the words 'are *caused* by external things through the intermediary of phantasms, the word being [thus] a sign of private phantasm'.[453] The more popular view is the conventionalist, or, as Watkins once put it, 'Humpty-Dumpty'[454] theory of meaning, which sees language as a system or a set of agreements. The third interpretation emphasises the idea that language is primarily a social phenomenon. The last two interpretations overlap, but differ so that the second concentrates on some theoretical aspects of language, whereas the third emphasises pragmatic aspects of language.

For the reasons explicated below, none of the candidates is a sufficient or even a correct way to describe Hobbes's ideas of language and meaning. The paradox of Hobbes's position is the following: to Hobbes language is at the same time the most natural and the most artificial entity. Consequently, what Hobbes says about the use of speech is an explanation, or perhaps an explication, of how we use language, but the language of explanation is not the same language that is explained.[455] From the point of view of everyday use, language is natural, not in the same sense as the natural bodies are natural, but in the sense that we are familiar with most of the words we use. But there again, to the normal speaker of a language words appear to have a life of their own in the same way as external objects appear independent of our perception of them. The artificiality of language unveils itself only through philosophical reflection, which shows that words do not have a transcendental or non-natural basis but are man-made.

Hobbes's early view, the article on understanding in *Elements*, is a good basis for further clarification:

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[451] Hobbes suggests that our words that try to describe God, for example 'infinitely good' or 'almighty', are attempts to honour Him. See *Leviathan* III, 11. The irony is that Hobbes's notion of God was not the one that was shared by his linguistic community.

[452] For different views, see Krook 1956, 3-22; McNeilly 1968, 36-37 and 55; Watkins 1989, 104-109; Hungerland and Vick 1981. For a discussion, see Herbert 1989, 74-75. For an early, sober articulation see Robertson 1993, 83. The conventionalist view has the best textual evidence. See *Elements* V.7, 37; *Leviathan* IV, 12; *Concerning Body* I.II.4, 16; and *De Homine* X.1-3, 88-92. In the last text Hobbes articulates the idea of convention perhaps most starkly when he claims that understanding is not possible without the arbitration of men. In my opinion this should, however, be read in the light of what Hobbes says about right reason in *Leviathan* (V, 18): 'Not but that Reason it selfe is always Right Reason, as well as Arithmetique is a certain and infallible Art: But no one mans Reason, not the Reason of any one number of men, makes the certaintie; no more than an account is therefore well cast up, because a great many men have unanimously approved it'.

[453] Peters 1967, 126.

[454] Watkins 1989, 104.

[455] This is an alternative formulation of Ross's (1987) idea that Hobbes had two theories of meaning.

> It is therefore a great ability in a man, out of the words, contexture, and other circumstances of language, to deliver himself from *equivocation*, and to find out the true meaning of what is said: and this is it we call UNDERSTANDING.[456]

The key word in the passage is 'true', which needs to be analysed in the two contexts.[457] The first is the ordinary use of language. The criterion of meaning in everyday language is fluency, that is to say, words that are understood in a normal communication situation are taken to be true. We usually understand what other people say to us and are able to use names. Here 'true' is the equivalent of 'valid' or 'correct' in the sense that the word, say, 'justice', is used in one of its common meanings in the language spoken.

From the point of view of the philosophical analysis of language this can be explained through the idea of convention. The English can for example agree that the word 'justice' means the same thing as 'to allocate each his own' and the Finns that 'oikeudenmukaisuus' equates to 'jokaiselle se, mikä hänelle kuuluu'. Furthermore, they can both agree that these definitions are in line with the classical definition, which says that '*Iustitia est constans et perpetua voluntas ius suum cuique tribuens*'.[458] Communication, then, is possible because of (shared) convention. If this were all Hobbes says about language, his theory of meaning would be conventional and arbitrary, but there are further aspects that question this conclusion.

A convention theory of meaning may lead to meaning-anarchism. This is, first of all, to mix two things, the arbitrary and the conventional. An arbitrary imposing of names is not the same thing as the idea that meanings are a result of convention. Secondly, as I have argued, Hobbes says that people learn language from other people.[459] Nevertheless, there is a problem with the conventionality thesis. It can lead to a language that does not describe the world as it is, as is the case with 'Schoolemen, and pusled Philosophers'. It is true that the combination of signs is arbitrary, but from this it does not follow that the meaning is arbitrary.[460] To express Pythagoras's theorem with the equation $c^2=a^2+b^2$ is a matter of convention, even arbitrariness, but it does not change the fact that 'in a right-angled triangle the square of the hypotenuse is equal to the sum of the squares of the other two sides' which is independent of conventions.

At the other end, causality is equally misleading and it is important to notice that, though the acquisition of language has a point of contact with Hobbes's materialism, significant differences exist. On the one hand, Hobbes's materialistic psychology

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[456] *Elements* V.8, 37.

[457] See also Ross 1987, 51-52.

[458] See Justianus *Institutes* I.I, 2. Cf. Plato *Republic* 331e; and *Romans* 13:7.

[459] This is based on the claim that the second use of speech (communication, teaching) is after all the most important to Hobbes, which again is based on Hobbes's rejection of the Adamite origins of language. See *Leviathan* IV, 12 and *De Homine* X.2.

[460] Hobbes's note on different languages in *Leviathan* (IV, 17) may be helpful here.

guarantees that the same stimulus produces the same response.[461] Therefore his theory of meaning has a causal element in the qualified sense that sounds are caused by matter in motion and that they activate certain conceptions in our minds, but then again the problem is that sometimes sound raises one, sometimes another conception, depending on 'contexture and other circumstances'. Punning, Hobbes's fourth use of speech, is a good example of this.

The problem can be rephrased in terms of how we learn language. Hobbes has been criticised for how little he says of the learning of language.[462] Again the criticism is not so well founded. Hobbes says few explicit things about the learning of language, except in relation to the language that God gave to Adam.[463] The extent of the applicability of this 'language gotten' is a matter for further study and in what follows I shall concentrate on what Hobbes says about the language of Babel, which takes us back to the question of the nature of understanding.

The difference between 'understandings' and other conceptions of the mind is that there is always an explanation linked to a certain sound or, what is more, to combinations of signs. This, if we read Hobbes carefully, requires that there is someone who explains, or as he says, teaches us,[464] what words mean. The argument is open-ended, for the person who is teaching the meaning of something has acquired in one way or another this meaning, when there is again the possibility that someone else has taught this to the person and so forth. There are two ways to treat this problem. The first is simply to assume that Hobbes thought that we learn language by growing up in a community.[465] The second way is to look at Hobbes's scientific reflection on language, that is, his theory of definition and his theory of proposition.[466]

As Jesseph has pointed out, according to Hobbes there are better and worse definitions.[467] For example, to define a human being as featherless and two-legged is not as a good definition as the one which says that humans are rational, living beings. This is a better definition not because it catches the essence of humanity, or because the majority of people equate these two, or because we have agreed that this is so, or because this combination of sounds has been causally pressed into our cortex, but because it gives the

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[461] See especially *Elements* IV.2, 31. Cf. Robertson 1993, 94. What is easy to ignore is that a perception of something is hardly ever the same.

[462] See Hungerland and Vick (1981, 92) and Robertson (1993, 131).

[463] *Leviathan* IV, 12 and *Concerning Body* I.2.4, 16, which are, I believe, instructive to read in relation to what Hobbes says on the same matter in *De Homine* X.2, 89-90.

[464] This is the second use of speech. See *Leviathan* IV, 13. The account of how the right to teach and preach is acquired may also be useful. See *Leviathan* XLII, 296.

[465] See, however, Ross 1987, 45.

[466] Bunce (2003, 88) gives reasons why the two may coincide.

[467] Jesseph (1999, 141-142). For the original claim see *Concerning Body* I.I.3, 4-5.

relevant qualities by which we are able to distinguish humans from other beings.[468] This, again, is possible because we have reason. Understanding of this line of thought requires the understanding of Hobbes's theory of proposition.

As for many others, to Hobbes a proposition consists of a subject, a predicate and a copula, and ' [a] true proposition is that, whose predicate contains, or comprehends its subject, or whose predicate is the name of every thing, of which the subject is the name'.[469] The definition includes two criteria. The first says that the predicate of a proposition must one way or another explain or at least shed light on the subject of the proposition, whereas the second is well caught in *Leviathan*, where Hobbes writes that '[o]ne Universall name is imposed on many things, for their similitude in some quality, or other accident: And whereas a Proper Name bringeth to mind one thing onely; Universals recall any one of those many'.[470] This summarises well the third form of coherence that can be found in Hobbes. Names are the things that bring the proper glue to our thinking. The case of universal names is illuminating. A universal name refers to that set of conceptions, caused by sensations of external bodies, that a person presently holds and to which the person refers by using a certain combination of symbols.

Taken simply, the formation of propositions is a mere combining of names and organising of sense-data into certain classes, but the word 'is' (or any other connector) does not merely connect, but also, if we believe Hobbes,[471] makes us think why certain names are connected.[472] Hobbes's theory of propositions brings to light one more criterion of meaning: correspondence with the correct understanding of reality, but this time 'correct' means not only that we know what something is, that is, are familiar by custom with its definition, but also that we know why something is defined as it is.

CONCLUSION: TRANSCENDING THE (NATURAL) MIND

The conclusions of this chapter are not solely related to themes and arguments that have been introduced in the chapter at hand, but need to be read in relation to the ideas discussed in the previous chapter on human nature.

In the chapter on human nature, I introduced the idea that there are different layers in Hobbes's theory of human nature and that it is important to distinguish between them, say, to distinguish animal from human psychology. I have suggested that historically

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[468] *Concerning Body* I.I.3, 4-5.

[469] *Concerning Body* I.3.7, 35. Cf. *Elements* V.10, 37-38 and *Leviathan* IV, 15

[470] *Leviathan* IV, 13.

[471] *Concerning Body* I.3.3, 31. Cf. Robertson 1993, 85-86.

[472] There is a supporting argument in Hobbes's theory of passions. Curiosity is the specific passion related to man's epistemic endeavours. This passion Hobbes defines as the 'desire to know why, and how' (*Leviathan* VI, 26).

Hobbes was influenced, at least indirectly, by the ongoing debates on the rationality of animals. Though his analysis of animal *psuche* is not as subtle as, say, Gassendi's, he is clearly not as rigid as Descartes. Instead, the naturalistic tendency in his philosophy calls for an account of similarities between man and brutes, though there is a special human psychology as well. The second major point has been that Hobbes's empiricism is not as a simple and evident as it is usually considered. It is simply not the case that the mind is a white paper[473] to be filled by experience. Though he maintains a view that the activity of the mind is based on the use of the five senses, it may well be that what follows from this is more important.

Hobbes is often at pains to show how the more complex psychological functions arise from his minimal starting points. The conservative reading proposes that memory must be accepted as an integral part of his theory of cogitation and that it is the mnemonic function of the mind that constitutes coherence and solidity of thinking. My own interpretation seeks to show that the basis of Hobbes's theory of human nature is wider in two respects. First, it contains a theory of signs, which explains the gradual formation of more complex forms of conceivability and that it is through this explanatory model that we are able to fill the gap that materialistic, mechanistic, and empiristic (in a word, naturalistic) interpretation leaves. Second, especially his theory of motivation shows that a straightforward materialistic and mechanistic reading of his theory of human nature will lead to contradictions and misunderstandings. Human beings are able to evaluate and control their passions.

Moving on to my concluding remarks on this chapter, language is an integral part of Hobbes's psychology, but language does not refer here to the fully developed human language, say, German, but to propositionality. Though it may be that the natural way our mind operates does not include even proto-linguistic structures, a philosophical explanation and introspection do require this. Secondly, Hobbes's view of human nature includes the elements of sociability. The first issue has been discussed during the course of the text, but the last topic needs further attention.

The end of Chapter VI of *Leviathan* establishes a preliminary account of how language and sociability are linked. Though the discussion seems to be merely some further remarks on the language of passions, two things suggest that it is not only this. Firstly, the distinction between real and apparent good and, moreover, the notion of felicity, establishes the idea of the rational balance for desires necessary for human flourishing.[474] The notion of apparent good can be equated with the unlimited urge for the fulfilment of desires and may be contrary to good life. As indicated, the reading of Hobbes as a value subjectivist relies on reading his value theory on the basis of the apparent good alone. And also as explained, the alternative way of reading Hobbes's

[473] As a detail it can be mentioned that Hobbes uses the metaphor of white paper in two places: *Elements* X.8, 62 and XXVIII.8, 176.

[474] *Leviathan* VI, 29-30.

theory of value is based on the notion of the real good, that is, things we have desires for after careful deliberation and where not only our momentary urges, but the broader course of life and other people are take into account. That the real good also includes our evaluations of what others might think is explained by Hobbes in Chapter X where he discusses the worth or value of a man.

The value of man, Hobbes writes in apparently cynical vein, is his price.[475] He goes on to explain that our qualities as such are not always worth something. For example, to be an able commander during the time of war makes one valuable, but, equally during the time of peace, these skills are not needed. We are, moreover, subject to estimations of others;'let a man (as most men do,) rate themselves at the highest Value they can; yet their true Value is no more than it is esteemed by others.'[476] Earlier, in Chapter VI, Hobbes has discusses the same matter in different terms:

> The forme of Speech whereby men signifie their opinion of the Goodnesse of any thing, is PRAISE. That whereby they signifie the power and greatnesse of any thing, is MAGNIFYING. And that whereby they signifie the opinion they have of mans Felicity, is by the Greeks called *μακαριομός* [makarismos], for which wee have no name in our tongue.[477]

In brief, the language of passions also includes the mechanism by which we influence and are influenced by each other. Second, the language of passions is inconstant and this causes conflicts as well as concordance. Though Hobbes is normally introduced as a conflict theorist, this is not a fully convincing view.[478] The salient point is the idea of social comparison that is embedded in Hobbes's theory of human nature and which is demonstrated at its best in his theory of passions and the analysis of power. Two notes (of which one was promised earlier) may help to see how the idea is manifested in Hobbes's philosophy.

In the light of the above analysis, freedom is also shown in a different light in Hobbes. It is not to Hobbes a boundless fulfilment of vain desires, nor a rigorous following of the eternal rules of reason. Neither is it negative or positive. Instead it is partly both. A stable mental life requires the feeling of fulfilment and gratification which is not possible if there is a never-ending circle of slavish demands or the continuous self-control of reason. Additionally, life is neither predictable nor uniform. Our likings and dislikings do vary and we are able to learn new things and alter our view of world accordingly. But above all, we do take into account other people and are willing to

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[475] *Leviathan* X, 42.

[476] *Leviathan* X, 42.

[477] *Leviathan* VI, 30. The Greek term Hobbes is referring to here means something between happy and blessed.

[478] McNeilly (1968, 205) goes as far as to claim that Hobbes is mainly interested in man as a social creature. Hoekstra (1998) provides a sober analysis of sociability in the thought of Hobbes.

compromise our so-called natural freedom in order to have a more secure and commodious life with them. This is the proper signification of Hobbes's idea of freedom as well as a correct reading of his subjectivism.

Moving to the second concluding note, there is a clear naturalist tendency in Hobbes's philosophical psychology, but this tendency should not be understood in a narrow way, that is, by only referring to the materialistic basis of the mind's various activities. Though this is one of Hobbes's primary aims and is especially clear with respect to the theories that present the minds' activity as immaterial, the other aspect of his naturalism is at least as important as the material aspect. Hobbes, I believe, did not only seek to demystify human nature in the described sense, but also appreciated the social dimension of our development.

The further connotation of natural is present in Hobbes's two different pictures of man (as natural man and as citizen). 'Natural man' refers to an agent who exists in the state of nature with all his alleged strive for power, insatiable needs, his unlimited right to everything, and the permanent fear of violent, sudden death. The second view, the citizen or subject, is more complicated for it is built on the idea of natural man, and therefore bears a likeness to this pre-political self. The notion of natural man has been seen as primary in Hobbes's theory of human nature. It is central to Hobbes for many reasons, but above all to show that there are some internal structures in human psyche which may need external co-ordination, and if we are interested in a more comprehensive view of his idea of human nature, the social and political dimensions of humanity are equally important.

Hobbes's theory of human nature, at least in *Leviathan*, stretches the conventional limits of the discipline in a number of ways. The major one I have put forward here is the social dimension of human nature. However, as I have explained, his philosophical psychology is not only an analysis of the mind, but also a portrait of a fanatic. Nevertheless, a number of questions can still be asked. Why is Zedekiah a false prophet and Moses and other righteousness men in the Old Testament are not? Why should we abandon the philosophy of Aristotle and especially its later medieval forms? A simplified answer is because they pose a major political threat, that can be summarised as the doctrine of private judgement. Vain philosophers, false prophets, even false Christs are considered 'Pernicuous to the Publique State' and they create 'Factions for Government of Religion, as of Papists, Protestans, &c. or of State, as Patricians, and Plebeinas of old time in *Rome*, and of Aristocraticalls and Demoraticalls of old time in *Greece* [which] are unjust, as being contrary to the peace and safety of the people, and a taking of the Sword out of the hand of the Soveraign'.[479] Compared to them a person who claims to be a

[479] *Leviathan* XLVI, 376 and XXII, 122. On the doctrine of private judgement, see *Leviathan* XXIX, 169-169 and LXVI, 376; on other political diseases, see Chapter XXIX; on the word of God and prophets, see Chapter XXXVI. Hobbes discusses false prophets and false Christs, i.e., Anti-Christ, when investigating Cardinal Bellarmines *De Summo Pontifice* (see especially *Leviathan* LXII, 303); on Moses

poodle with wings is as convincing as the famous fly 'sitting on the axletree, and saying to himself, What a dust do I raise!'[480]

The chapter in hand and the one that preceded ithave tried to establish that Hobbes's philosophy transcends the mind in three ways: by stretching the disciplinary limits of the study of human nature, by giving privilege to language in this analysis, and by making a man depend not only on his material, but also his social surrounding. There is, nevertheless, an important aspect of Hobbes's naturalism: scientific thinking is based on the natural operations of mind. The analysis of this provides the opening section of the following chapter.

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and other legitimate prophets, that is, sovereigns, see *Leviathan* XXXVI, 231-232 and 'A Review and Conclusion', 393-394; and on vain philosophy, see *Leviathan* Chapter XLVI. Zedekiah appears in *I Kings* 22.24 (Hobbes's remark, see *Leviathan* XXXIV, 209). In the Scripture the issue is touched upon in *Deuteronomy* 13:2-4; *Matthew* 24:24; *2 Thessalonians* 2:9-1; and *Revelation* 13:13-14.

[480] *Elements* IX.1, 51.

V CAUSES AND KNOWLEDGE

To Hobbes all thinking is the succession of phantasms ('mental discourse', 'trayne of imaginations') and his ideas of rationality, reasoning, and knowledge are based on this basic view. When unregulated, mental discourse is not of much use,[481] but the opposite, a kind of lunacy. The rational thinking however is in one way or another ordered. In *Leviathan*, Hobbes describes the coherent succession of thoughts in the following manner:

> The Trayne of regulated Thoughts is of two kinds; One, when of an effect imagined, wee seek the causes, or means that produce it: and this is common to Man and Beast. The other is, when imagining any thing whatsoever, we seek all the possible effects, that can by it be produced; that is to say, we imagine what we can do with it, when wee have it. Of which I have not at any time seen any signe, but in man onely;[482]

In this chapter I will analyse the described kinds of succession of thoughts. The guiding thread of the chapter is to show how Hobbes's theory of knowledge and his idea of reason is built up from simple constituents. Along with this general scheme, Hobbes's architectonics of epistemic forms is also introduced. Here the aim is to emphasise that though *prima facie* a strict rationalist and an enemy of nonsense, Hobbes still had an interest in other forms of thinking. However Hobbes's concern with such things as belief, faith, and opinion has a strict agenda: to demarcate the philosophical thinking from the non-philosophical thinking.

In the first part of this chapter the pre- and semi-scientific forms of thinking will be analysed, and then the examination is gradually enlarged towards the more developed forms. This transition could be characterised as one from opinion to reason.[483] The broader argument here is that Hobbes's notion of reason is partly based on his conception of imagination.

There is a general question that needs to be discussed before entering into a detailed study. Is thinking without language possible? In a letter to Hobbes, composed already in 1637, Kenelm Digby (1603–1665) seems to propose that Hobbes did not consider thinking possible without language. Digby writes:

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[481] See Hobbes's letter to young Cavendish, where he explains that vanity is action without design (*Correspondence* Letter 27)

[482] *Leviathan* III, 9.In *Elements* (IV.3, 31) the nearest equivalent is 'ranging'.

[483] Vaughan (2002, 'Introduction') considers this transition as central when trying to understand Hobbes's conception of political education.

> In your Logike, before you can manage men's conceptions, you must shew a way how to apprehend them rightly: and herein j would gladly know whither you work vpon the generall notions and apprehensions that all men (the vulgar as well as learned) frame of all things that occurre unto them; or whither you make your ground to be definitions collected out of a deep insight into the things themselues. Methought you bent this way when we talked hereof; & still j am of opinion it is too learned a one for that which ought to be the instrument of other sciences.[484]

Digby's short comment is relevant in a number of ways. On the basis of an earlier personal conversation, Digby suggests that in his logical work[485] Hobbes adopts a specific and technical way of analysing language and, in particular, universal names, which are the basis of all philosophy and science. He is, however, hesitant on two things: first, is this really so and, second, is it possible to hold such a view? Digby's rejection of the latter as 'too learned' is curious. Though the obvious solution, that by 'too learned' he means too learned for the vulgar is possible, it is difficult to say whether this is really the case. The opening of the letter suggests the opposite context, it speaks of the acquisition of concepts and on what bases this happens, but the excerpt ends with the reference to the idea of language as the general instrument of other sciences. Digby would surely have benefited from the two-level analysis of Hobbes's conception of language introduced in the previous chapter. In the light of this analysis, it can be answered that it is possible on the basis of everyday language that we do have general notions, but to have universal, clear, and distinct conceptions that are the basis of philosophy requires more complicated forms of human thinking. In brief, everyday language is the raw data of more developed and also correct language.

The primacy of language is not, however, a subterfuge to ignore Hobbes's reflections of the less developed functioning of the mind. Pre- and semi-rational forms of human thinking do not only explain how the more developed forms emerge, but also enrich Hobbes's view of human nature.

IRRATIONALITY AND RATIONALITY

There are two dogmas that may hinder an appreciation of the richness of Hobbes's account of pre- and semi-rational thinking. The first is a picture of him as a proto-associationist. His language comes, at times, close to that of associationism, but it should be kept in mind that Hobbes is here better described as a mechanist and a materialist. The second is the pictorial account of mental discourse. To consider thoughts as mental images is to deny not only the variety of sensation and to reduce it to visual sensation,

[484] *Correspondence* Letter 25, 42-43.

[485] The work Digby is talking about, probably, refers to an early draft of the first part of *De Corpore*. See editor's note 2 on *Correpondence* Letter 25, 49.

but also to impoverish the life of the mind. Aside from these general objections, there are a number of reasons why these two questions need to be revised here.

Hobbes never used the term association or defined his ideas as associationism, but many of his ideas seem to be close to what is in general attached to this doctrine. He says that thoughts relate to each other on the basis of the original sensations and explains the variety of our thoughts by the variety of experiences from a thought follows sometimes one, sometimes another idea. The word 'sense' brings to mind sometimes the faculty of perceiving (say, according to Aquinas, 'sensing is the reception of phantasm',) sometimes the idea that there is a connection between things (say, the clause,'Your accusation makes sense, thought you should consider if he is that bad.'). There is not, however, much point in building a strawman called associationism and then concluding that the described ideas are not found in Hobbes, for the validity of this kind of argument lies on external criteria, namely a formulation of associationism and the formulation could easily be stretched so that it also applies to Hobbes. The first proper objection is then that associationism was a later invention. The second and the salient objection is that Hobbes's view of the functioning of the mind, even though it can be sometimes *described* in terms of the concept of association, is *explained* by the notion of appetite. A chain of quick imaginations can be seen as a chain of associations (again the example of the Roman penny is enlightening), but what directs the ideas is appetites and aversions in their various forms[486] and these are causal powers.

When it comes to the second question, the idea of a mental image is not so much pictorial, but arises from a platitude in the tradition of rhetoric, which is more likely the origin of Hobbes's conception of a mental image. An example will illustrate the difference. In rhetoric, the aim of the speaker is to raise an image in the minds of an audience. For instance, when speaking of how horses run wild, the rhythm of the speech should imitate the rhythm of a canter or a gallop, depending on kind of run in question. This conception of a mental image is, firstly, specific by its nature, and secondly, by its functions. An important aspect of this kind of a conception of a mental image is that it allows more variety and gives a certain freedom to the audience. The view is not however individual or subjective, because the idea should not be taken literally, that is, every hearer forms his own mental image. If this does not take place, the speaker has failed, because he has not produced speech which is good and strong enough to catch the essence of a subject, say, the panting of the horses. Additionally, it could be pointed out that the pictorial (in the sense of referring to a content of mind caused by sight) reading of mental content makes it hard to appreciate the influence that rhetoric had on Hobbes's philosophy. With these remarks it is possible to proceed.

[486] See also Thorpe (1940, 90-97).

If one is looking for a general title under which to put the forms of pre- or semi-scientific thinking in Hobbes, the term is prudence.[487] The prudence, or the reflected experience that is used for a certain purpose, of a man depends on two things: his age and, in some degree, on the variety of his experiences .[488] As a capacity, prudence is giving a learned guess about the likely state of affairs on the basis of experience (that is, sensations and memories) and it is not genuine knowledge. An old man that has travelled and met many people is likely to be more prudent than a young man who has once visited the neighbouring village. In what follows, the three constituents of prudence (opinion, belief, and *sagacitas*) will be discussed.

PRE- AND SEMI-SCIENTIFIC THINKING

An opinion, generally, is a resolute interruption in a chain of thoughts and when having opinions we try to decide whether a matter has or has not been, or will or will not be. If the whole chain of thought is unsteady, we talk of doubt. When a decision is taken and we reach a conclusion upon the matter, we call this a judgement.

The second meaning of opinion is related to science. If science is a coherent system of knowledge of consequences that also includes the proper first definitions, opinion is a part of a similar system or discourse but in which the first definitions are not laid down properly or in which definitions are not connected together correctly. The result is that the consequences of opinions (which are opinions in the sense discussed here) may or may not be correct. In relation to this line of thought the notion of belief is also relevant. Like opinion, belief is a discourse that begins not with definition but 'either at some other contemplation of his own' or 'some saying of another' to which the person can trust and rely.[489] Furthermore, it is possible to distinguish between belief and faith. Belief refers to both: to the person who we believe, and to what this person says. Faith refers only to the person.

Opinion and belief deal with probability, testimony, and trust, but unlike today these three should be seen not in isolation, but in interaction. In *Elements,* Hobbes defines them in the following manner:

> And all such propositions as are admitted by trust or error, we are not said to know, but think them to be true: and the admittance of them is called OPINION.
> 7. And particularly, when the opinion is admitted out of trust to other men, they are said to believe it; and their admittance of it is called BELIEF, and sometimes faith.[490]

[487] The notion is discussed in various works of Hobbes. For central articulations on which I base my discussion, see *Leviathan* III, 9-12; VII; and VIII, 32-35; and *Elements* IV.6-11, 32-34.

[488] *Leviathan* VIII, 35-36. Cf. *Elements* IV.10, 33

[489] *Leviathan* VII, 31.

[490] *Elements* VI.6-7, 42.

In *Leviathan*, Hobbes's tone is clearer and more analytical. He writes:

> But if the first ground of such Discourse [of syllogisms], be not Definitions, or if the Definitions be not rightly joyned together into Syllogismes, then the End or Conclusion, is again OPINION, namely of the truth of somewhat said, though sometimes in absurd and senselesse words, without possibility of being understood.
> [...] When a mans Discourse beginneth not at Definitions, it beginneth either at some other contemplation of his own, and then it is still called Opinion; Or it beginneth at some saying of another, of whose ability to know the truth, and of whose honesty in not deceiving, he doubeth not; and then the Discourse is not so much concerning the Thing as the Person, and the Resolution is called BELEEFE, and FAITH; *Faith*, *in* the man; *Beleefe*, both *of* the man, and *of* the truth what he sayes.[491]

The concepts have three aspects that need to be discussed here. The first is the epistemological aspect. Obviously, opinion and belief are not knowledge, but then again, they seem to characterise something that is quite common, namely, that in everyday life we often lean on poorly argued ideas which in a closer look often turn out to be false. Instead of discarding this, Hobbes tries to give a philosophical account that explains what is wrong with common beliefs and everyday justification. Such beliefs may well be true, but they are not certain, and there is no plausible justification that makes them true. As such, the notions are part of his critical revision of epistemology. The second aspect is theological. To articulate belief and especially faith in a mundane and ordinary fashion is to allude to the fact that certain parts of religious life are political rather than spiritual. That is, faith in man, not in God. Lastly, a social aspect is present in the discussion: much of what is taken to be knowledge is based on personal qualities. People adopt ideas, not so much because of the plausibility of what is said to them, but because the person who expresses them is reliable. Let us look at all three aspects in turn.

By the notions of opinion and belief, Hobbes seeks to gather together the whole range of ideas that people can be taken to hold in their everyday life, but which they do hardly ever justify. This may be because there really is no justification or simply because people do not care to give one, but follow blindly what they have been told. Most of these opinions and beliefs are harmless. It does not pose a great threat to anyone, if a person believes that waking up at 6 o'clock is necessary for his well-being or if one believes, on the basis of what one has read, that a certain well-known philosopher has married.[492] Though this kind of "streetwiseness" does not meet the philosophical standards also Hobbes is setting, it is noteworthy to point out that Hobbes considers this sort of everyday epistemology. Again the idea is the one articulated in the introduction of the thesis: many common beliefs are right, but not true in the philosophical sense of the word, namely, that there is now sound and indisputable explanation of them.

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[491] *Leviathan* VII, 31.

[492] For the latter, see *Correspondence* Letters 67 and 68.

The theological aspect of belief is also a part of Hobbes's rational project. To believe something said, Hobbes claims, is the way of divines and not found in other discourses, where belief is always a belief in a person. Understood like this, belief is the blind resignation to authority and 'but Confession and acknowledgment of the Doctrine'.[493] In political terms, if the church is under secular control, then its teachings are acceptable and should be followed by everyone, at least in their external action. Belief in what is said is, however, the secondary meaning of the notion when the primary meaning is the belief in someone.

Belief in someone is present in Hobbes's conception of history. When we assent or dissent with history, we agree or disagree with its writer. The same, so Hobbes seems to suggest,[494] applies with Scriptures, it is not the word of God that we doubt, but its interpretation. This kind of belief in someone is up to an individual and may well change accordingly. Here Hobbes emphasises integrity and calls this kind of belief faith, which depends on our judgement of the integrity and competence of that individual not primarily of the validity of his or her thoughts. It is through this characterisation that the third, social, aspect of opinion and belief enters into the discussion.

Since our faith in a man depends on his virtue it depends on certain qualities that are largely determined by valuations of community. In some communities, frankness and sincerity are appreciated, but in others, wealth and beauty. The central idea of Hobbes's account of pre-rational epistemic forms is the following: a significant part of our everyday knowledge is based on mutual trust. That is to say, our epistemic framework and sociability are intimately tied together. But then again, though this may have some point of contact with the political argument on covenanting Hobbes makes later in *Leviathan,* and though this kind of 'inarticulate'(or as it has become fashionable to say, tacit) knowledge is enough most of the time in everyday life, it is of course insufficient for philosophical purposes and genuine knowledge, which need to be articulated and justified. The philosophical analysis of knowledge begins with the conception of *sagacitas*.

Thinking is to Hobbes productive and creative. It is productive in the sense that by the means-end calculation it aims at action, and it is creative by the free-play of ideas, which is more relevant to his conception of knowledge. This free-play does not have much to do with, say, the idea of creativity that developed in Romanticism and which has shaped the modern conception of imagination.[495] Instead creativity arises from the basic mechanisms of the human mind and is first and foremost epistemic in nature:

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[493] *Leviathan* VII, 31. Here the word refers more to 'dogma' than other meaning of the term, that is, 'teaching'.

[494] *Leviathan* VII, 32.

[495] See Engell 1981.

> In summe, the Discourse of the Mind, when it is governed by designe, is nothing but *Seeking*, or the faculty of Invention, which the Latines call *Sagacitas*, and *Solertia*; a hunting out of the causes, of some effect, present or past; or of the effects, of some present or past cause.[496]

Though, as Hobbes's example confirm,[497] *sagacitas* has more to do with prudence than genuine philosophy, its theoretical and structural relevance is significant. The point is that *sagacitas* is part in a continuum that shows how Hobbes's theory of the human mind and his concept of science are related. *Sagacitas* refers not only to pre-scientific, but also to semi-scientific thinking; *sagacitas* formulates Hobbes's general idea of science as an inquiry proceeding either from effects to cause (analysis) or from causes to effects (synthesis), but not because, as it is restricted to sensations, it is unable to produce genuine scientific knowledge.[498]

Natural capacities (senses, train of thoughts) and their derivatives such as *sagacitas* do not however take us far. We may have what Hobbes calls natural wit, which is a combination of two things '*Celerity of Imagining* (that is, swift succession from one thought to another;) and *steddy direction* to some approved end'.[499] Natural wit, in other words, is the observing of similarities (good wit, or fancy) and differences (judgement) between things and from it arises experience, prudence and craft.[500] Naturally acquired knowledge is useful, but not infallible. To this we need to add reason, the only acquired wit,[501] which is based on language.

VARIATIONS OF REASON

Though Hobbes holds that reason is always one and the same and that there is not, for instance, judical reason,[502] the notion itself has various meanings in Hobbes. He speaks of natural reason, artificial reason (which is reason in the proper sense), and right

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[496] *Leviathan* III, 9-10. Cf. *Elements* IV.4, 32. For a discussion, see James 1997, Chapter 8, especially 189-191. Hobbes's selection of terms is of some interest. *Sagacitas* means keenness of senses in general and in particular keenness of scent, whereas *solertia* is cleverness, resourcefulness, or skill. It is also worth remembering that curiosity is an integral part of Hobbes's account of knowledge. On curiosity, see Bunce 2003, Chapter 2.

[497] *Elements* IV.3, 30 and *Leviathan* III,10. See also what Hobbes says about rhyming in *The Virtues of an Heroic Poem*, iv-v.

[498] Hobbes defines science or philosophy in numerous places in his works. For some articulations, see *Leviathan*.V, 21 and *Leviathan* IV, 16; *Concerning Body* I.VI.1, 65-6.; I.I.2-3, 3-5 and I.I.8, 10; and *Critique du 'De Mundo'* XXX.10, 352-353.

[499] *Leviathan* VIII, 32.

[500] *Leviathan* VIII, 34-35. For a discussion, see Hinnant 1976 and Cantalupo 1991, 240 and 219.

[501] *Leviathan* VIII.13, 35.

[502] *Dialogue*, 8-9.

reason.[503] A wide-spread view is that Hobbes's notion of reasoning is computational.[504] This is not fully satisfying label. The reason is that the view does not give full justice to the role of language in Hobbes's thinking.

To speak in general and more modern terms, Hobbes's notion of rationality is instrumental. However, exactly what is meant by instrumental is a complex issue. On the one hand it refers to the philosophy of mind and epistemology. Reason is a device, not so much a faculty, and reasoning, properly speaking, is something that is acquired by rehearsal and education. As a practical notion, instrumental rationality refers to the view that reason is unable to tell an agent what ends he or she should try to aim at, merely what means he or she may use to attain these ends. The direct evidence in Hobbes supports at least the last conception of instrumental rationality; 'For the Thoughts, are to the Desires, as Scouts, and Spies, to range abroad, and find the way to the things Desired'.[505]

Natural reason seems to play a minor role in Hobbes. It should be understood as a condition for the further development of reason and reasoning. That is to say, Hobbes assumes that we have certain natural dispositions that, if practised, will be realised. It is also safe to say that the pre- and semi-rational forms of thinking discussed represent natural reason. One example is the reasoning that clouds are a sign of rain. More precisely, based on previous experience, an agent makes a conjecture that the coming course of events will follow ones that occurred in the past. Here the agent is said to reason because he or she makes a deduction from causes to effects. These two concepts, it will turn out, are central in Hobbes's analysis of reasoning, if not always in his analysis of the concept of reason.

According to Hobbes, when we reason, we do

> nothing else but conceive a summe totall, from *Addition* of parcels; or conceive a Remainder, from *Substraction* of one summe from another: which (if it be done by Words,) is conceiving of the consequence from the names of all the parts, to the name of the whole; or from the names of the whole and one part, to the name of the other part.[506]

First of all, there is the condition 'if it done by Words', which, as Hobbes points out repeatedly, implies that the proper use of reason requires language. But as also should be clear, Hobbes does distinguish between reasoning with words and without them. A

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[503] For some aspects of this distinction, see Nauta 2002, 48-51.

[504] This idea has a long history starting at least from Leibniz, who in his *Dissertatio de arte combinatoria* praised Hobbes's idea that 'every operation of mind is a computation' (see also Malcolm 2002, 528). The computational model is, however, a little bit misleading, especially if understood as algebraic calculus. For Hobbes's suspiciousness of algebra, see Martinich (1999, 283-4) and the passages there.

[505] *Leviathan* VIII, 35.

[506] *Leviathan* V, 18.

person can reason without words upon particular things and here if a consequence one expected on the basis of prudence does not appear, we speak of error. To reason in general terms and make a mistake here is called 'an ABSURDITY, or senselesse Speech'.[507] Reasoning is, then, the proper connecting and disconnecting of names. Further on, by connecting and disconnecting (excluding) one may produce systems of knowledge. The stages of these systems are name, affirmation, syllogism, demonstration and sum. From sum one may subtract a proposition and start a new chain of reasoning.

To re-articulate Hobbes's notion of reason in computational terms, we could say that reason is nothing but reckoning with words and it is important to recognise all the stages of reasoning, not only the result. Reason also aims at general conclusions. The first definitions are included in the chain of deduction for they are 'the first Items in *every* Reckoning (which are the significations of names settled by definitions)'.[508]

The salient point of Hobbes's concept of reason is its protean nature. Hobbes gives certain general qualifications what reason is, but how precisely reason functions in different disciplines is a further question. His discussion in *Dialogue* may shed some light on the issue:

> *La*. 'Tis is true, if you mean *Recta Ratio*, but *Recta Ratio*, which I grant to be law, as Sir *Edw. Coke* says, I *Inst. Sect.* 138. Is an Artificial perfection of Reason gotten by long Study, Observation, and Experience, and not every Mans natural reason; for *Nemo nascitur Artifex*. This Legal Reason is *summa Ratio*; and therefore, if all the Reason that is dispersed in so many several Heads were united into one, yet could he not make such a Law as the law of *England* is, because by many Successions of Ages it hath been fined and refined, by an infinite number of Grave and Learned men.[509]

Hobbes, of course, cannot accept this kind of characterisation for a number of reasons. Firstly, reason is the same for all and has its origin in our natural capacities. Secondly, reason is not the same thing as prudence ('observation, and experience'), but requires study and industry.[510] As the philosopher in the *Dialogue* replies: 'though it be true, that no Man is born with use of Reason, yet all Men may grow up to it as well as Lawyers'.[511] Thirdly, the perfection of reason is not a gradual process in the sense described by the student. It is not accumulation of knowledge. Instead of collecting the registers of facts and knowing what kind of things there are in the world, knowledge requires us to know why something is what it is.

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[507] *Leviathan* V, 19.

[508] *Leviathan* V, 19 (italics mine).

[509] *Dialogue*, 18.

[510] *Leviathan* III, 11 and V, 21.

[511] *Dialogue*, 18.

It is the artificial nature of reason, which gives Hobbes the possibility of making a claim that appears contradictory, but is not, namely that reason is based on our natural capacities, but is itself artificial. If his account is analysed as a leap from sense to conceptual thinking, the idea is not clear, but when the mediating steps (namely forms of conceivability, his theory of signs, his idea of regulated train of thoughts, and *sagacitas*) are taken into account, the following makes sense:

> These operations are not incident to Numbers onely, but to all manner of things that can be added together, and taken one out of another. For as Arithmeticians teach to adde and substract in *numbers*; so the Geometricians teach the same in *lines*, *figures* (solid and superficial,) *angles*, *proportions*, *times*, degrees of *swiftnesse*, *force*, *power*, and the like; The Logicians teach the same in *Consequences of Words*; adding together *two Names*, to make an *Affirmation*; and *two Affirmations* to make a *Syllogisme*; and *many Syllogismes* to make a *Demonstration*; and from the *summe*, or *Conclusion* of a *Syllogisme*, they substract one *Proposition*, to finde the other. Writers of Politiques, adde together *Pactions*, to find men's *duties*; and Lawyers, *Lawes* and *facts*, to find what is *right* and *wrong* in the actions of private men. In sum, in what matter soever there is place for *addition* and *substraction*, there also is place for *Reason*; and where these have no place, there *Reason* has nothing at all to do.[512]

In this sense, reason is then nothing but reckoning the consequences of general names, either to oneself, when we speak of marking, or to others, when we speak of signifying, but it is obvious that people do not always agree about the consequences. Some reasons for this were found in the list of uses and abuses of speech; a person may deceive himself or others or make a mistake in deduction. In order to avoid conflicts, a procedure of settling is required. This procedure Hobbes calls right reason.

Reason itself is always right reason, but by this is not meant the reason of an individual or something agreed upon a number of men. Firstly, right reason refers to the idea that certain truths, such as those of arithmetic, are infallible. The problem is that even though a person holds right reason, 'no one mans Reason, nor the Reason any one number of men, makes the certaintie'.[513] Right reason, properly speaking, is 'the Reason of some Arbitrator, or Judge',[514] a definition which has a number of dimensions. The first and the most obvious is related to the neutrality of reason. An outsider (that is, an objective view) is needed, because when nature does not give an answer, men are too keen to impose their points of view, which are based on private interests and passions.

The second dimension of right reason is social. Right reason is reasoning, that is, giving reasons, and in the particular way that this reason giving is received, which does not here mean the majority rule, but a reason that can be understood by anyone. A possible interpretation of this is a kind of public use of reason. That is to say, knowledge

[512] *Leviathan* V, 18.

[513] *Leviathan* V, 18.

[514] *Leviathan* V, 19.

should be contested openly, critically, and publicly. Hobbes's objections to Boyle and his experimentalist programme, for instance, point in this direction.[515] What Hobbes continuously objects to is the procedure in which matters of fact are produced in the community of experimentalists. He even seems to suggest that this is a kind of elitist model for scientific knowledge.

What is left before moving on to the next subject, is to connect reason to the major theme of this study, imagination. The second principal role imagination plays in Hobbes's thought is to overcome the problem of empirical limitation, that is, how we are able to have universal scientific knowledge. It does this in the first place by imposing the described artificial order upon reality with words, but this is actually the starting point for a more elegant coherence of thinking, which is embedded in the familiar idea of reason as a calculus, or adding and substracting.

The operations of addition and subtraction are then one more manifestation of Hobbes's idea of the coherence of thinking and instead of reading them in computational terms, they should be understood as something that is in harmony with the basic operations of the mind, on the one hand, and, the clear and distinct understanding of words on the other.

CAUSALITY AND FORMS OF KNOWLEDGE

Aside from coherence, rational thinking is constituted by knowing the causes of things. Hobbes believed that 'all events and actions have their necessary cause'[516] and it is the role of science, the inquiry of causes and effects, to find these out.[517]

In general terms, cause is to Hobbes those accidents in the agent that produce certain changes in the patient and its accidents, which are effects, and causation 'consist[s] in a certain continual progress; so that as there is a continual mutation in the agent or agents, by the working of other agents upon them, so also the patient, upon which they work, is continually altered and changed.'[518] Causality in Hobbes could be understood only as a material cause, but, properly speaking, the material cause is one of the two major types of cause Hobbes discusses. It is true that he maintains that the universal cause of all things is matter in motion, but as such the doctrine applies only to natural bodies. An example of this kind of cause is gravity. The cause of gravity is not some 'internal appetite' in a body, but its attraction to earth, understood so that this

[515] This is documented by Shapin and Schaffer (1985). For some critical accounts, see Sorell 2001, 134-141 and Malcolm 2002, 187-196.

[516] *Liberty and Chance*, 'To the reader', vii.

[517] For a discussion of Hobbes's theory of causality and its relation to his idea of science, see Jesseph 1999, 198-205 and Malcolm 2002, 154-155.

[518] *Concerning Body* II.9.6, 123. See also II.9.3, 121-122. An agent is the active, or productive, a patient the passive, or receiving component of a causal process. See *Concerning Body* I.9.1, 120.

attraction is a result from other bodies.[519] With artificial bodies the conception of cause need to be rephrased.

In politics and in geometry, which deal with artificial bodies, the notion of cause is constituted by the knowing subject. In this sense we make knowledge. We know what something is and especially why it is, because we start a causal process. In general, Hobbes has two conceptions of causality: the effective causality and the causality that applies to objects of geometry and civil philosophy. The first can already be found in his early works, but he seems to start developing the latter only in and after writing *Leviathan*.[520]

The other primary meaning of the cause will be referred to as the generated cause. A generated cause can also have concrete effects, but instead of just causing a course of events, it causes certain events on the basis of the knowledge created by a knowing subject.

The distinction between the material and the generated cause is by no means clear and various aspects of the distinction will be discussed during the course of the text, but one clarification is needed here.[521] Hobbes says that to know something is to know its effects from causes or causes from effects. This refers, among other things, to the distinction between two kinds of bodies and two kinds of philosophical inquiries. On the one hand, philosophy studies natural bodies and in this sort of inquiry knowledge is acquired by proceeding from effects to causes, that is, from sensations to generalisations and to the hypothetical laws that are supposed to regulate natural phenomena. On the other hand, philosophy studies artificial bodies like laws and commonwealths, which are solely man-made entities. This kind of inquiry proceeds, normally, from causes to effects.

According to Hobbes, all the causes are efficient or integral causes. By integral cause, Hobbes means that a cause always has two components: accidents in the agent and accidents in the patient. Together these produce certain phenomena.[522] By efficient he means that a cause always has a certain effect. If there is no effect, one of the components of a cause is missing. When we move to the more technical discussion on causality, the analysis becomes more complicated.

In Chapters VIII, IX, and X of *Concerning Body*, Hobbes defines cause and makes some basic distinctions, for example, between action and passion. The unifying notion of

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[519] *Concerning Body* IV.30.2, 509-510.

[520] Especially in *De Homine*, X and later in works like *Six Lessons*, *Decameron Physiologicum*, and *Principia et problemata aliquot Geometricae* (in *OL*, V), though see also *Critique du 'De Mundo'* I.4. For a general pattern of how Hobbes's idea of science changed from the science of definitions toward a more causal idea of science, see Malcolm (2002, 151-154).

[521] I follow here mainly what Hobbes says in *Concerning Body* I.1.9.

[522] A brief comparison might help us to understand Hobbes's line of thoughts. The discussion of the concepts of the first and the second cause in *Liberty and Chance* (261) proposes that Hobbes's model of causality is a synchronic vector model, where the partial causes form a full cause and Bramhall's model is a diachronic point-model based on chains of causes.

Hobbes's conception of causality is that of the entire cause, which is a combination of two partial causes: the efficient and the material cause, which he defines (respectively) as, '[t]he aggregate of accidents in the agent or agents, requisite for the production of the effect' and 'the aggregate of accidents in the patient, the effect being produced'.[523] In other words:

> a CAUSE simply, or *an entire cause, is the aggregate of all the accidents both of the agents how many soever they be, and of the patient, put together; which when they are all supposed to be present, it cannot be understood but that the effect is produced at the same instant; and if any one of them be wanting, it cannot be understood but that the effect is not produced*.[524]

From this definition it follows that all entire causes are always necessary causes. It would make no sense to think that a cause is entire if both an efficient and a material cause are not present, that is, if the accidents in an agent and those in a patient are not produced.[525] Hobbes then denies the possibility of contingent causes. However, there can be something that he calls contingent accidents, which are accidents that are not needed in order to produce an effect,[526] but which may change the outcome.

There are a number of distinctions and contexts that need to be explicated when discussing causality in Hobbes. Hobbes's theory of cause is of a peculiar nature. It seems to be a rather straightforward development of a theory of causality as this was articulated in the physics of the time, namely, on one the hand, in Aristotelian, and, on the other hand, Galilean physics, though the emphasis is on the latter. However, it is true that Hobbes drops some parts of Aristotelian theory of four causes, but equally true that his discussion of causality has links with this theory.

Instead of examining influences, the framework I shall introduce here is Aristotle's original theory of four causes (formal, material, efficient, and final), and, in particular, how he understood the notion of cause.[527] There is a common belief that Hobbes denied final cause, but this is not exactly true. In *Decameron Physiologicum*, his late dialogue on natural philosophy, Hobbes explains the relationship between the four Aristotelian causes:

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[523] *Concerning Body* II.9.4, 122.

[524] *Concerning Body* I. 9.3, 121-2. The notions of agents and patient are technical and they can refer to both inanimate bodies, say, a stone, and animate bodies, like a man. See *Concerning Body* I.9.1, 120.

[525] *Concerning Body* II.9.5, 122-3. See also *Concerning Body* II.9.10, 126-7.

[526] *Concerning Body* II.9.10, 126-127. This is not a novel idea. Epicurus, for example, proposed that atoms may deviate from their regular course.

[527] Aristotle discusses the four causes in various places in his works. The familiar example of a statue appears in *Physica* 194b17-195b30. See also *Analytica Posteriora* 94a24-b37. Note, however, that Hobbes was aware of some other theories. For instance in *Liberty and Chance* (260) he criticises the Stoic and Christian notions of necessity.

> B. Your desire, you say, is to know the causes of the effects or phenomena of nature; and you confess they are fancies, and, consequently, that they are in yourself; so that the causes you seek for only are without you, and now you would know how those external bodies work upon you to produce those phenomena. The beginning therefore of your enquiry ought to be at; *What it is you call a cause?* I mean an efficient cause: for the philosophers make four kinds of causes, whereof the efficient is one. Another they call the formal cause, or simply the form or essence of the thing caused; as when they say, four equal angles and four equal sides are the cause of a square figure; or that heaviness is the cause that makes heavy bodies to descend; but that is not the cause you seek for, nor any thing but this: *It descends because it descends*. The third is the material cause, as when they say, the walls and roof, &c. of a house are the cause of a house. The fourth is the final cause, and hath place only in moral philosophy.[528]

All four Aristotelian causes, then, have their role in Hobbes's thinking, but we need to be precise what kind of a cause to apply to what kind of phenomenon. Hobbes uses the efficient and material causes to explain all kind of phenomena, natural, moral, and civil. They are part and parcel of his theory of causality. It is equally clear that final and formal causes do not play a role in the analysis of causality in the natural world. The reason for the false conclusion that they do not play any role in Hobbes's philosophy, I believe, is the following.

Firstly, Hobbes's general definition of causality as the process of an appropriate interaction of accidents in the agent and the patient gives an impression that he refers only to bodies understood as material objects. In fact, this is a justified interpretation because of Hobbes's metaphysical position, materialism. The mistake is, however, to think that though Hobbes takes the world to be nothing but matter in motion it does not follow from this that we are not able to analyse the world from another point of view. The physico-metaphysical explanation is not exhaustive. The strictly materialist reading seems to ignore a distinction that Hobbes makes throughout his works, namely the distinction between natural and artificial bodies. On the metaphysical level there is nothing but matter and its motion, but the same does not apply on the epistemological level. Here we operate with the effects of external bodies in us, or appearances, which can be, as long as they are acquired directly or *indirectly* from sense-experience,[529] anything from stones to democracies. The agent and the patient are not necessarily natural bodies, but can also be artificial bodies. It would be as inappropriate to explain democracy purely in terms of physics as to explain rainbows in terms of theology.[530]

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[528] *Decameron Physiologicum* , 82. Cf. *Concerning Body* II.10.7, 131-132 and *Critique du 'De Mundo'* XXVII.

[529] *Leviathan* I, 3. Here Hobbes writes: 'The Originall of them all [that is, thoughts of man], is that which we call SENSE; (For there is no conception in a mans mind, which hath not at first, totally, or by parts, been begotten upon the organs of Sense.) *The rest are derived from that originall*.' (italics mine).

[530] See *Leviathan* XXXVII, 233 (a theological explanation of the rainbow) and *Concerning Body* IV.27.14, 463. Hobbes's reference to Descartes is probably to a discussion in *Optics* (Descartes 1984, vol I, 168).

Secondly, the necessary elements of an entire cause, the efficient and the material cause, could mean different things when applied to stones, birds, and to men. In the case of stones, the efficient and the material cause are, so to speak, of the same quality, a piece of matter that is in motion. In the case of birds, they differ a little because it is reasonable to think (and we can point to textual evidence from Hobbes[531]) that animals have certain rudimentary intentions[532,] for example, birds make nests in order to have a shelter. Nevertheless, in animals the material cause is the principal explanatory cause. In the case of men, the material cause plays a secondary role. It is true that our body works under the same laws of physics as all other natural creatures (think, for example, of the circulation of the blood). This is a material cause but what Hobbes seems to consider more relevant in the case of human beings is the efficient cause; the cause in an agent, that is, in a sentient and rational being. The difference between the two can be found from Chapter VI of *Leviathan*, which makes the distinction between vital and animal motion. The efficient cause of our action is the latter. It is significant that we are able to imagine our action in our minds before committing them. We would be like animals if the case was closed to the intentionality embedded in the notion of animal motion. Animals can also have imagination, though not as developed as the human imagination. What, however, they are not able to have are intentions formed by rational thinking. Only humans can reflect on their action. This kind of intentionality plays a significant role in Hobbes's analysis of causality.

Thirdly, Hobbes's materialism should not mislead as. It is true that there is no teleology or finality in nature. The final cause, as Hobbes himself points, is only applicable in moral philosophy. But again some hasty conclusions have been made. Hobbes writes that there is no *summum bonum*, or ultimate end (*finis ultimus*), but this is true only when taken to mean what he meant by it, namely the idea of the greatest good as formulated by some philosophers, such as, Aristotle and Aquinas.[533]

Hobbes has in fact have two ideas that may well be in accordance with the final cause. The first is the subjective goal of an individual. We all have our ends and likings in life. These do not coincide with those of others, but they are the final causes of each individual.[534] This kind of *finis ultimus* is, however, something that Hobbes rejects. It is significant in order to understand his argument about absolute sovereignty, but it should be localised to this argument. Hobbes builds, if not a strawman, a caricature, which he

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[531] For example, see what he says about sense and prudence in *Leviathan* (respectively, VIII, 32 and LXVI, 367). For some examples of how brutes think, see *Leviathan* III, 10 and *Elements* V.1, 3,4-35. An important discussion on deliberation appears in *Liberty and Necessity*, 243-244.

[532] Intention in the modern-day sense of the term, not in the technical one that Hobbes uses, for example, in *Liberty and Necessity* page 273.

[533] *Leviathan* XI, 47.

[534] On the apparent good discussed above, see *Leviathan* VI, 24 and 29. See also what Hobbes says about deliberation and the difference between voluntary and spontaneous action in *Liberty and Necessity* (272-273), and his analysis of rash actions, in where *Liberty and Chance*, 80-81.

then utilises in the broader argument. Secondly, Hobbes himself denies the relevance of the subjective ultimate end, seeing it as destructive to the political order, and secondary in his theory of human nature.

More relevant is the second conception of final cause, which is objective,[535] and appears in Hobbes's civil philosophy, namely security and commodious living, or, in short, peace. Furthermore, security overcomes commodious living and it can be concluded that the *summum bonum* is life, which to Hobbes is the ultimate value. The difference between him and his predecessors is that Hobbes is pluralistic in the sense that he does not give a detailed list of what falls under *summum bonum*, and, secondly, though in theory, life is the ultimate value of any rational agent, Hobbes does not deny the obvious, namely that there are situations where some other thing overcomes value. Therefore, as many held before Hobbes, security is the objective end of every commonwealth and in this highly contextualised sense there is *a* or even *the* final cause. In brief, because human beings have different ideas of what is good in life, Hobbes deliberately leaves open what could be the final cause in moral philosophy, but not the conception of the final cause *per se*.

Fourthly, Hobbes appears to have little interest in formal cause,[536] though it has been suggested that it also has a role in Hobbes's civil philosophy.[537] This is perhaps best explained by the distinction that appears already in the subtitle of *Leviathan*. In civil philosophy, some natural features of humans like passions are the material cause of a commonwealth, whereas, the intentions of these same human beings are the formal cause of a commonwealth. To conclude, all the traditional concepts of cause do play a role in Hobbes's theory of causality, but these roles are not clear cut and obvious.

A brief comment on Hobbes's own vocabulary of causality is needed. He used three different pairs of terms to describe causality. These are cause and effect, power and act, and generation and consequence (or at times, property).[538] The first pair is the principal object of Hobbes's analysis. Power and cause differ from each other in that 'cause respects the past, power the future time'.[539] In a similar way, effect is used to describe things which have already happened and act things that will happen. The last pair of terms Hobbes uses to describe causality is generation and properties.[540] This can be found, for example, from *Leviathan*:

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[535] Or the real good discussed earlier.

[536] In *Concerning Body* II.10.7, 131-132, Hobbes says that both the formal and the final cause are efficient causes and that the use of these terms in Scholastic theory is empty.

[537] Malcolm 2002 , 151.

[538] The principal sources (respectively) are *Concerning Body* II.11 and *Concerning Body* II.10.

[539] *Concerning Body* II.10.1, 128.

[540] The latter is sometimes replaced by 'appearance', sometimes by 'consequences'.

> By PHILOSOPHY, is understood *the Knowledge acquired by Reasoning, from the Manner of the Generation of anything, to the Properties; or from the Properties, to some possible Way of Generation of the same; to the end to bee able to produce, as far as matter and humane force permit, such Effects as human life requireth*.[541]

This is obviously something that diverges from the more traditional conception of causality discussed above. The difference is that the terminology of generation is more active than the traditional vocabulary of cause. With these initial remarks it is possible to analyse in detail Hobbes's theory of causality, which falls under two headings: material and generated cause.

MATERIAL AND GENERATED CAUSE

Material causality could be characterised as a smooth interaction between the accidents of an agent and those of a patient. The first and the most obvious place to reflect on Hobbes's notion of material causality is in his natural philosophy.

Causality in the natural world is always hypothetical.[542] Since we are not able to know external bodies, but only the effects of motions they cause within us, we are only able to make the best possible explanations of them. As Hobbes writes:

> The first beginnings, therefore, of knowledge, are the phantasms of sense and imagination; and that there be such phantasms we know well enough by nature; but to know why they be, or from what causes they proceed, is the work of ratiocination; which consists (as is said above, in the 1st Chapter, Art. 2) in *composition*, and *division* or *resolution*.[543]

The second principal area where material causality appears in Hobbes, is in his kinematic geometry.[544]

The common view of geometry, held for example by Euclides, Proclus, Clavius, and Descartes, understood the objects of geometry as immaterial, separated from matter

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[541] *Leviathan* XLVI, 367.

[542] This should not be confused with what Hobbes says about the idea of hypothetical necessity, or necessity upon supposition in *Liberty and Necessity* page 262. In the latter, Hobbes criticises Bramhall's terminology, which he considers absurd. To say that something is at the same time necessary and hypothetical is nonsense. In the former context, hypothetical means that we are not able to say with *absolute certainty* how *exactly* natural bodies interact – or as it reads in the margin of *Concerning Body* (II.9.8, 125): 'The same agents and patients, if alike disposed, produce like effects, though at different times'. However we do know that they are *necessarily* matter in motion, which is the universal cause of all natural phenomena. See *Concerning Body*, II.9.7-9, 124-126.

[543] *Concerning Body*, I.6.1, 66.

[544] Kinematic geometry uses the motion of bodies to explain geometry. For example, a line is explained as the motion of a point. For a short but illustrative discussion, see Child 1953, 276-279.

by abstraction. Hobbes's view was quite the opposite.[545] Geometrical objects, like a point, line, and surface, are bodies or motions of bodies.[546] To say that a point is 'that which has no parts', or define a line as 'breadthless length'[547] is nonsense according to Hobbes; it is the same thing as to say that 'a *Point is nothing*'.[548] Instead, '[y]et if, when a body is moved, the magnitude of it be not at all considered, the way it makes is called a *line*, or one single dimension, and the space, through which it passeth, is called *length*; and the body itself is called a *point*.[549]

The idea of kinematic geometry could be taken to be a connecting element between Hobbes's general idea of science, which takes its model from geometry, and his natural philosophy. If reality is nothing but matter in motion and if geometry is a science which operates within the general laws of motion, physics seems to rest on a firm basis. Additionally, for example the articles on method in the first part of *Concerning Body* and the table of sciences in *Leviathan* seem to support this reading.[550] The reading is not totally convincing. Geometry, even in its kinematic form, is epistemologically different from physics or other sciences of natural bodies, because the notion of causality is different. The similarity between kinematic geometry and physics turns out to be slight. It is still strange why Hobbes puts forward a programme of materialistic geometry. One could try to give two answers to this question. The first relates to his metaphysical position, while the second tries to analyse causality in the contexts of metaphysics and logic.

The first discussion is, perhaps, more obvious. If Hobbes indeed was a materialist and maintained that there is nothing in the world except bodies, rest, and motion, it is not so strange that he seeks to integrate geometry into this more general doctrine. I believe however that the idea of materialistic geometry should not be taken too literally.

It is true that Hobbes sometimes uses concrete language when describing the peculiarity of geometrical objects.[551] It is also true that Hobbes sometimes explains an abstract idea, say, how reasoning is adding and subtracting, by constructing figures.[552] But these are illustrations. The more pressing reason why a concrete, or materialistic,

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[545] For a critique of algebraists, see *OL*, V, 41 and Hobbes 1682, 93.

[546] From this follows, as has been noted by Jesseph (2004, 207), that there is no distinction between pure and applied mathematics in Hobbes.

[547] These are the definitions of Euclid in his *Elements*, book 1, definitions 1 and 2, which were widely accepted. For a discussion, see (Jesseph 1999, p.78ff).

[548] *Six Lessons*, 201.

[549] *Concerning Body* II.7.12, 111.

[550] See *Concerning Body* I.6.6, 71-72. The table of sciences appears in the Chapter IX of *Leviathan*.

[551] See *Six Lessons*, lessons 4 and 5 (especially, 289 ('Let us therefore pass to the demonstration ...')).

[552] See, for example, *Concerning Body* II.7.10, 98. This is peculiar to Hobbes's argumentation in *Critique du 'De Mundo'*.

reading of geometry is misleading is that this is not what the idea of constructing or making the objects of knowledge means to Hobbes.

It was mentioned earlier that Hobbes's terminology of causality has a different flavour in *Leviathan* and in the works after *Leviathan*. Chapter V of *Leviathan* reads:

> *Science* is the knowledge of Consequences, and dependance of one fact upon another: by which, out of that we can presently do, we know how to do something else when we will, or the like, another time: Because when we see how any thing comes about, upon what causes, and by what manner; when the like causes come into our power, wee see how to make it produce the like effects.[553]

The passage includes two analyses of causality. The first sentence speaks of the dependence of one fact (that is, state of the world, not of the mind) upon another, while the rest of the passage introduces another idea of causality. The first kind of causality refers to Hobbes's idea that science is about the efficient causes of things, which causes are all ultimately matter in motion, but whose generation is never completely known by us. This was discussed in the previous section.

In the case of artificial bodies, generation does not refer to the natural causes of phenomena, but, instead to constructions that are best exemplified in geometry and civil philosophy. It should, however, be added here that though this notion is of great importance to Hobbes's idea of geometry, it is best exemplified in civil philosophy.[554] Let us look at these in turn.

Along with the kinematic conception of geometry Hobbes emphasised the axiomatic model of discipline. The axiomatic model has, roughly speaking, two parts: axioms (these can be definitions, postulates, and common notions) and propositions (or, simply, what follows from axioms). In this account, geometry is intellectual activity, which naturally uses drawn figures, but these figures play a minor role. It is this model which Hobbes adopted as a paradigm of his idea(l) of science. Embedded in it is the idea of generated causality and the model has a number of roles in Hobbes philosophy.

First, generated causality is used to form the basic concepts of science. In *Concerning Body,* Hobbes describes it as follows:

> Now, seeing none but a true proposition will follow from true, and that the understanding of two propositions to be true, is the cause of understanding that also to be true which is deduced from them; the two antecedent propositions are commonly called the causes of the inferred proposition, or conclusion. And from hence it is that logicians say, the *premises* are causes of the *conclusion*; which may pass, though it be not properly spoken; for though understanding be the cause of understanding, yet speech is not the cause of speech. But when they say, the cause of the properties of any thing, is the thing itself, they speak absurdly. For example, if a figure be

[553] *Leviathan* V, 21 (cf. IV, 16 ('And the act of ...')).

[554] See also Caygill 1989, 23-24.

> propounded which is triangular; seeing every triangle has all its angles together equal to two right angles, from whence it follows that all the angles of that figure are equal to two right angles, they say, for this reason, that that figure is the cause of that equality. But seeing the figure does not itself make its angles, and therefore cannot be said to be the *efficient-cause*, they call it the *formal-cause*; whereas indeed it is no cause at all; nor does the property of any figure follow the figure, but has its being at the same time with it; only the knowledge of the figure goes before the knowledge of the properties; and one knowledge is truly the cause of another knowledge, namely the *efficient cause*.[555]

Generated causality then means the relationship between artificial objects, above all concepts, propositions, and syllogisms. For example, 'incorporeal substance' is an absurd concept, because it follows from the definition of substance that: if a thing is a substance, it is a body, that is something corporeal. Equally, the proposition 'man is a stone' is false, because the predicate does not contain the subject.[556] Lastly, the same pattern of thought applies to syllogism (reasoning). For example:

'Socrates is a man'
'Every man is a gadfly'
So, 'Socrates is a gadfly'

This is a valid syllogism, because the conclusion follows from the premises. The fact that it is odd lies in the falsity of the second premise (gadfly does not belong in the definition of man – even though it might belong to the definition of Socrates), not in the logical structure of the syllogism.

What is interesting in the long passage quoted is, first, the role figures play in geometry. The knowledge of figures, like a triangle, do not cause their own properties, but they do cause our knowledge of the properties. Second, with the help of our reasoning we are able to give definitions to the objects of geometry, and on the basis of these we know that this knowledge is certain and universal, because we have produced the very objects with our thinking. It is these kinds of constructions that play a significant role in Hobbes's idea of geometry, civil philosophy, and in his later analysis of causality, and which best characterise his mature idea of philosophical thinking.

In *Concerning Body* Hobbes defines philosophy to be:

> *the knowledge we acquire, by true ratiocination, of appearances, or apparent effects, from the knowledge we have of some possible production or generation of the same; and of such production as has been or may be, from the knowledge we have of the effects.*[557]

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[555] *Concerning Body* I.3.20, 43-4. Cf. *Leviathan* VII, 30-31.

[556] *Concerning Body* I.3.7, 35.

[557] *Concerning Body* I.6.1, 65-6. Cf. *Concerning Body* I.1.2-3, 3-5 and I.I.8, 10.

It has been claimed that this applies only to natural philosophy.[558] It indeed says two things that seem to defend this interpretation. The first is that philosophy starts from 'appearances, or apparent effects', or from the knowledge 'we have of the effects'. The second is 'possible production', which is in line with Hobbes's idea that our knowledge of the natural world is always hypothetical, and therefore the knowledge we have of it is merely possible, not certain and necessary. The passage also says, however, at least two things that oppose the idea introduced. The first is that we might have the knowledge of generation of something, while the second is that we do have the knowledge of how certain effects have been produced. Both additions point out a significant issue, namely the change in Hobbes's account of causality, which is best studied in Hobbes's idea of civil philosophy.

Generated causality is present in Hobbes's civil philosophy in the following manner: cause in politics is constructed by the knowing subject. The difference is that natural philosophers generate only the knowledge of a thing, say, botanists generate knowledge of plants, but they do not generate the plants, whereas civil philosophers do both, they generate the commonwealth by generating knowledge concerning it. We know what something is and especially why it is, because we start the causal process by generating the necessary knowledge, e.g., '*That every man, ought to endeavour Peace, as farre as he has hope of obtaining it; and when he cannot obtain it, that he may seek; and use, all helps, and advantages of warre*'.[559] One of the main points of our analysis is to explain that what Hobbes did believe is that the hope mentioned in the first and fundamental law of nature is rational. Theoretically speaking, to understand rationality requires the understanding of what causality means in his civil philosophy. That is to say, if every man endeavours peace, that is, gives his natural right to everything, people's mutual hostility and continuous fear of death will cease.

The natural and the artificial are not, however, necessarily in conflict in Hobbes's works. They are sometimes two sides of the same thing. This does not remove the epistemological hierarchy between the two. To Hobbes, geometry and civil philosophy are more certain because of their stronger notion of causality. The causal process described in these disciplines is not just something similar, but is exactly as we make it. What this means in practice Hobbes explains in *Concerning Body*:

> [W]*hether such an action be just or unjust*; if that *unjust* be resolved into *fact against law*, and that notion *law* into the *command* of him or them that have *coercive power*; and that *power* be derived from the *wills* of men that constitute such power, to the end they may live in peace, they may at last come to this, that the appetites of men and the passions of their minds are such, that, unless they be restrained by some power, they will always be making war upon one another; which may be known to be so by any man's experience, that will but examine his own mind. And,

[558] Sorrel (1986, 55-59)

[559] *Leviathan* XIV, 64.

> therefore, from hence he may proceed, by compounding, to the determination of the justice or injustice of any propounded action.[560]

This type of 'conceptual composition and resolution' are at the heart of Hobbes's idea of (civil) philosophy and causality.[561] This is also something that every rational creature should understand.

It is somewhat strange to consider commonwealths as nothing but matter in motion. The issue calls for a clarification. Commonwealths are the result of our intentions, conscious thinking and our co-operation. Intentions find their exact formulations in our concepts. Therefore it is better to analyse, say, democracy through what we mean when we use this word. The twist is, however, that this kind of rational constructions do have a point of contact with material reality, albeit indirectly. This is not in any way in contradiction with Hobbes's materialism, which should be understood as a metaphysical doctrine. What Hobbes repeatedly says in his works is that all knowledge is based on appearances, which are expressed in language. The word 'democracy' raises a certain fancy in my mind. This fancy need not be exactly the same every time I recognise the word 'democracy', for occasions in which the term appears might add something new to my conception of democracy.

Generated causality has two further elements. The first could be called a definitional causality and the second operational causality. Definitional causality means that it is because we agree (that is, determine) on something, say, to give up our natural right to everything except to life, and keep the promise not to kill each other, so that peace and commodious living become possible . [562] The operational causality means that it is because we make laws and find them binding that we can be sure that if someone breaks the commitments made, he or she will be punished. That is to say, our agreement has consequences in terms of concrete actions. Contracts, administration, and public officers are all products of this resolute and continuous will to make life better, and a working commonwealth is the best example in Hobbes of what the generated causality is.

To conclude, Hobbes's determinism can be articulated in terms of necessity, and the unity of necessity is the following: because the world is nothing but the motion of bodies (metaphysical necessity), because we are physical creatures that are regulated by the laws of motion (psychological necessity), we should do everything to understand

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[560] *Concerning Body*, I.6.7, 74.

[561] The analysis that follows owes much to Malcolm (2002, 152-3). See also Kraynak (1990, 69-74 and especially page 71, where Kraynak proposes that Hobbes's method should be understood as a procedure). Jesseph (1996, 99-100 (cf. 93) and 1999, 232-3) makes a similar conclusion, but adds that if we understand this idea of science as forming concepts in an arbitrarily-conventional manner, the view is imperfect. It is not flawed, if we accept that there are better and worse scientific definitions. According to Hobbes good definitions are those, which reveal the real causes of phenomena.

[562] Caygill (1989, 30) is illuminating here. Caygill argues that Hobbes's 'account of personification accords with [his] requirement that a philosophical explanation gives an account of the production of its object'.

them (epistemological necessity) in order to act in a right way in relation to ourselves (moral necessity) and towards others (political necessity). This, I believe, is the correct understanding of Hobbes's determinism.

KNOWING WHAT AND KNOWING WHY

The difference between natural philosophy and civil philosophy can also be formulated by using the distinction between knowing what and knowing why. In natural philosophy in order to know why, we need to know what, but in civil philosophy and in geometry, in order to know what, we need to know why. According to Hobbes there are two kinds of knowledge, that of fact and that of consequences of affirmations.[563] Knowledge of facts or absolute knowledge[564] is based on sense and memory, whereas the latter form of knowledge is scientific knowledge properly speaking. Empirical knowledge is particular and demonstration or explanation related to it is as rational as possible (in modern terms: it aims at probability), but is never totally certain.[565] We know that the universal cause of natural phenomena is the motion of matter. Genuine scientific knowledge requires that we know the specific causal mechanism and because there be various causal mechanism behind a phenomenon, universal propositions on these matters are likely to be false. Hobbes's treatment of gravitation and other natural phenomena in Part IV of *Concerning Body* are all examples of this kind of hypothetical scientific knowledge. In the case of gravitation, he lists some hypotheses:

> Some philosophers therefore have been of opinion, that the descent of heavy bodies proceeded from internal appetite, by which when they were cast upwards, they descended again, as moved by themselves, to such place as was agreeable to their nature. Others though they were attracted by the earth. [...] To the latter, who attribute the descent of heavy bodies to the attraction of the earth, I assent. But by what motion this is done, hath not as yet been explained by any man.[566]

A further detailed study of the phenomenon of gravitation is not of interest here; what is important is to understand that plausible theories or hypotheses of gravitation are based on the motion of matter. This is the level of certainty we are able to reach in natural philosophy, where the nature of things will always remain unknown.

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[563] *Leviathan* IX, 40.

[564] This kind of knowledge is absolute in two senses. Firstly, it is absolute in the sense that it states something that exists (that S) rather than something that does not (that not-S). Secondly, it is absolutely understood as a contrast to conditional scientific knowledge. That is, absolute knowledge is in the form of the proposition: S is P, whereas scientific propositions are in the form of the proposition: If S, then P.

[565] *Seven Philosophical Problems*, 11. Cf. *Liberty and Necessity*, 276.

[566] *Concerning Body* IV.30.2, 509-510.

The fundamental 'obscurity' of the objects of the external world can be defended by two further arguments. The first says that we do not perceive external objects, but only impressions of them, and because there are errors in our perception, the causal processes of the natural world remain unknown to us. The second is what could be called the simple onto-theological argument and its idea is the following. Hobbes says he thinks that God is omnipotent and incomprehensible, but we know that he created the natural world.[567] He also believes that God can create things in many ways; this follows from the omnipotent nature of God. Therefore it is impossible to have sure knowledge of the natural world.

There is then at least some ground to the claim that Hobbes's view on the fundamentally unreliable character of the natural world has a theological element or, at least, that it is made in a context that could be characterised as theological. When reading further Hobbes's theory of knowledge, it turns out, however, that this theological basis is replaced by another solution.

The distinction between absolute and philosophical knowledge can be clarified by distinguishing different propositions.[568] Even philosophical propositions are always expressed in the conditional, they are certain, and apply universally. ('*If* something is a crow, it *is* a bird'), whereas empirical propositions are either absolute and particular ('*This* crow *is* black') or generalisations ('*All* crows *are* black).[569] The factual proposition 'This crow is black' is true, but in a more limited sense than the proposition 'All crows are black'. The former is a particular contingent truth, while the latter is a general contingent truth. Scientific propositions are neither. They are universal necessary truths. The proposition 'All crows are birds' appears to be a universal necessary truth, because we are accustomed to think that crows are birds. However, it is not a universal necessary truth, because our perception can alter it.[570] The propositions of geometry and civil philosophy are real universal necessary truths, because they are valid no matter what our perception is – this does not mean that contingent truths are useless. For example the proposition: 'Justice is to give each his due …' is always a true one. Judges can be bribed and they may give different sentences for the same crimes, but this does not change what justice is.

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[567] *Leviathan* III, 11; XII, 53; and XXI, 108.

[568] On contingent and necessary propositions, see *Critique du 'De Mundo'* XXXV.9. See also Malcolm (2002, essay 5) whom I follow here.

[569] For a clear articulation of hypothetical nature of scientific propositions, see *Critique du 'De Mundo'* XXVI.2.

[570] A modern example may help us to understand the matter. Sorting into species is an illustrative way to show how truths which are related to natural bodies and taken to be universal are not. For instance, it is generally thought that chimpanzees are pongids. However, recent research has established that the genes of chimpanzees and some other large apes are so similar to human genes, that we should re-categorise them as hominids.

A more customary way of articulating the difference is to use notions of analysis and synthesis.[571] As was earlier explained philosophical inquiry may proceed from causes to effects or from effects to causes. In general, if it proceeds from effects to causes, this is called analysis, or the resolutive method, or simply division. Correspondingly, if it proceeds from causes to effects it is called synthesis, the compositive method, or simply composition. There are some general guidelines which kind of inquiry is typical to which area of philosophy. In natural philosophy, the method is analysis; we make hypotheses of the causes of various phenomena of nature on the basis of their effects on us. And again, the synthetical method is used in demonstrative sciences. This general distinction is, however, misleading, for synthesis and analysis have further meanings in Hobbes.

Firstly, all science follows, in a way, synthesis, because all science starts from definitions. In civil philosophy, for example, we need to define certain basic concepts, like law and right, and this is also the case in natural philosophy, as Part III of *Concerning Body* shows. What needs to be take into account, however, is that though Hobbes does not explain whether every science has its own *philosophia prima*, I believe it is safe to conclude that he rejects the Aristotelian idea that every science has its own *archê*.[572] Hobbes does think, though, that all science has certain basic concepts, like body and motion.[573]

Secondly, the forming of basic concepts, in general and in specific sciences, consists of both synthesis and analysis. Though the philosophical study of concepts requires analysis, the consistency of concepts needs to be validated by synthesis, that is, by studying what follows from their definitions. Here another bifurcation appears: the validation can, naturally, take various forms. It is logical, for example, that if both P and not-P follow from a concept X, there is something wrong with it. But along with this logical validation there is also the empirical validation, which means that what a concept and the phenomenon is supposed to describe cannot be contrary to our experience. In the light of this double validation, Hobbes's rebuttal of some notion, like 'incorporeal substance', makes sense. The procedure of double-validation appears to apply to every branch of philosophy. Natural philosophy is the most obvious example, but civil philosophy and geometry also, in their ways, follow the procedure. The case of civil philosophy was explained earlier when the notion of generated cause was introduced. Here it can be added, that the materialist undercurrent in Hobbes's notion of geometry itself is a sign that he recalls the empirical basis of geometry. The fascinating feature of geometry is its concrete beauty. Though they are pure artefacts of the mind, the objects of geometry appear in the world around us and make it more comprehensible.

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[571] What is said here follows Hobbes discussion in *Concerning Body* I.VI ('Of Method').

[572] See *Metaphysica* 983b11

[573] To be a little more precise, *philosophia prima* studies notions related to the most general qualities of being, but of course as such it is basis of all philosophy. See *Critique du 'De Mundo'* I.1 and, for a discussion, Zarka 1996.

The last remark on the protean nature of analysis and synthesis is that the constitutive part of every branch of philosophy as well as *philosophia prima* in its original sense, that is, the study of the most general qualities of being and reality, is a continual movement from analysis to synthesis. Again and again phantasms are analysed and their definitions clarified and the consequences of these new definitions tested in the light of what we know. As Hobbes concludes: '[i]n the study of philosophy [...] according to this variety of things in question, sometimes the *analytical method* is to be used, and sometimes the *synthetical'*.[574] Therefore it is not simply the case that the analytical method deals with logical knowledge and the synthetical with empirical knowledge, but that the two methods complement to each other. Hobbes distinguishes exactly how one receives a further elucidation in the analysis of different kinds of knowledge in his mature theory of philosophical knowledge.[575]

In *Six Lessons to the Professors of Mathematics*, Hobbes reformulates his view of the principal forms of knowledge. The first kind of knowledge (that of fact, or knowledge simple) is particular and probabilistic, 'because with the natural bodies we know not the construction, but seek it from the effects', while the second (the knowledge of consequences) is genuine scientific knowledge in which 'the construction of the subject […] is in the power of the artist himself, who, in his demonstration, does no more but deduce the consequences of his own operation'.[576] The latter articulates Hobbes's idea of definition-based[577] and generated knowledge, which is typical of geometry and civil philosophy.[578]

The objects of geometry, such as lines and planes, are generated in two ways, 'drawn and designed'.[579] As concrete objects, they are drawn and in this sense we really

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[574] *Concerning Body* I.6.3, 68. I hope that the reasons given in my text this far justify my stretching of the context (Hobbes is here speaking of the explanation of some natural phenomena like light and gravity).

[575] Even though my claim has been that the new conception of knowledge started to form in the 1650s, there are possible indications that Hobbes had something similar in mind earlier. See *Elements* VI.2-3, 40-41 and *On the Citizen* XVIII.4, 237.

[576] *Six Lessons* 'The Epistle Dedicatory', 183-4. Cf. *Elements* VI.1-4, 40-41; *Leviathan* IX, 40; *Concerning Body* I.6.1, 66; and *De Homine* X.4, 92-94. Hobbes ponders the same idea in relation to natural philosophy in *Seven Philosophical Problems* (3-4), but concludes that 'the doctrine of natural causes hath not infallible and evident principles'.

[577] Scholars have commented on the status of definition in Hobbes's thought and in particular on his idea of science. Peters (1967, 56) found Hobbes 'incredibly naive', whereas David Johnston (1986, 65), while rebutting Peters view, does not believe that definitions 'carry any force of their own' and sees them as logical entities. I think that both miss Hobbes's late development. Reik (1977, 62-63) gives some analysis of what she calls the method of genetic definition and in this relation she refers to Cassirrer (1955, 254). For clear discussions of the subject, see Jesseph (1999, especially 141-142) and Malcolm (2002, 153-154 and 166).

[578] Goldsmith (1993, 333-4. Cf. 1966, 10-11) suggests that we should take this claim seriously, that is to say, civil philosophy is a formal science.

[579] *Six Lessons*, 'The Epistle Dedicatory', 184. Cf. *De Homine* X.5, 93.

generate them. This is not, however, the point. We could draw a billion triangles and still not have genuine knowledge of them.[580] Therefore geometrical knowledge is genuine scientific knowledge, because of design, that is, rational construction of them by definitions and ratiocination. Ratiocination does not refer only to logical or conceptual analysis, but definitions must correspond with something real. Therefore, the classical definition of point as 'that whereof there is no part,'[581] or the law of commutation, which says that $x + y = y + x$, do not belong to the body of scientific knowledge. First because it does not fit with Hobbes's idea that all real entities must have extension, and second, because it does not pick up any real entities from the world.

This position poses a problem.[582] If we take into account that philosophy, scientific reasoning, is 'knowledge of the truth of propositions, and how things are called, and is derived from understanding',[583] Hobbes's vehement opposing of algebra is strange because numbers and mathematical symbols appear to be adequate tools for scientific reasoning. A possible way out is to say that algebra consists of what has been called fictions, but this solves little, because the immediate objection is: does not the same apply to many other things which Hobbes takes to be the object of science? For example, law and right. There are two possible ways to interpret this conclusion. The first is the idea that Hobbes's theory is a maker's knowledge theory, whereas the second explains the late theory of knowledge in more customary terms. But before we consider these two readings, a note on Hobbes and scepticism.

In his versatile and groundbreaking introduction to *Leviathan*, Michael Oakeshott wrote on Hobbes's philosophical motives:

> An impulse for philosophy may originate in faith (as with Erigena), or in curiosity (as with Locke), but with Hobbes the prime mover was doubt. Scepticism was, of course, in the air he breathed; but in an age of sceptics he was the most radical of them all. His was not the elegiac scepticism of Montaigne, not the brittle net in which Pascal struggled, not was it the methodological doubt of Descartes; for him [Hobbes] it was both a method and a conclusion, purging and creative. It is not the technicalities of scepticism (which we must consider later) that are so remarkable, but its ferocity.[584]

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[580] Losonsky's (2001, 50-51) discussion of 'a speechless geometrician' is illustrative here.

[581] *Six Lessons*, 317. This is the way Euclid's definition of a point is usually understood. Hobbes claims that this is a mistaken reading of the definition. The same line of thought applies to the definitions of a line and a plane. See *Six Lessons*, 'The Epistle Dedicatory', 184 and, 200-202. Euclid's original definitions, see his *Elements*, Book I, definitions 1, 2 and 5.

[582] Hobbes's concept of mathematics and its relation to his idea(l) of science has been studied by Jesseph (1999) and Grant (1996). Historically it may be of some importance to point out that Mersenne held a similar humanistic conception of mathematics. For Mersenne's view, see Dear (1988).

[583] *Elements* VI.1, 40. Cf. *Leviathan* XLVI, 367.

[584] Oakeshott 1975, 10.

Oakeshott's view is rather lyrical, but there is a broader family of arguments that introduces Hobbes as a kind of sceptic.[585] In order to understand Hobbes's relation to this school of thought, a small introduction to its history is necessary. The development of the sceptical movement can be characterised by pointing out what is the focus of scepticism at each stage. It is possible to distinguish three main phases: epistemological, psychological and moral scepticism. In what follows, I will narrow my discussion to the first and second.

A concern of the neo-scepticical movement was to refute the naive theory of perception, which claims that there is an unproblematic correspondence between what we perceive and an object of the world, the idea that the perception of a normal observer in normal conditions is correct.[586] The novel idea, which developed among the Mersenne circle and was put forward above all by Descartes, was to claim that it is not an error in perception, say, colour-blindness, that blocks our cognitive interaction with reality, for even a wrong or an erroneous perception is a perception of something, that is, a sense-impression, and as such the object of our knowledge. No matter how fantastic a sense-impression is, a subject is unable to deny that imaginations are truly in his mind.[587] Therefore the act of perception is non-representational in the sense that it does not represent reality understood as an objective and constant structure.

It is quite sure that Hobbes knew the ideas and the arguments of classical scepticism and was aware of its modern advocates like Montaigne, but the sceptical reading does not appear plausible. As I have tried to explain during the course of this chapter, Hobbes aimed at certainty. Also natural philosophy aims to the best possible hypotheses. The general argument in favour of Hobbes's scepticism fails to see this.

The specific argument where scepticism is seen as an instrument or a point of reference for Hobbes to develop his ideas is not convincing for the following reason. Though Hobbes may have used scepticism as he used subjectivism, that is, tactically, there is a further tactical aim that needs to be taken into account: in his "sceptical" arguments Hobbes simply criticised naive empiricism. This, however, at its best, tells us only what the negative aims of his epistemological project were. The content of his more substantive theory of knowledge arises from rather different origins.

In some studies the role of the so-called maker's knowledge tradition[588] is suggested to offer a broader framework when trying to understand Hobbes's conception

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[585] For an account that sees Hobbes as a part of the development of scepticism in the Early Modern period, see Popkin (2003, 189-207 and 1982, 133-148). For a well-articulated account of Hobbes and scepticism, see studies by Tuck (1983, 1988a, 1988b, and 1993). Tuck emphasises epistemological and psychological aspects, while Popkin studies Hobbes's alleged scepticism in religion and politics. For a recent, balanced view, see Harrison (2003, especially 39-42 and 132ff).

[586] Originally in *De Anima* 418 a11-16

[587] Descartes 1984, I, 128. Cf. Tuck 1988b, 35.

[588] I have not come across a thorough study of the maker's knowledge tradition, but Pérez-Ramon (1988, Chapters 5 and 13) offers some systematic and historical guidelines. It is at least of historical

of knowledge. From this tradition, three major strands can be distinguished: theological, craftsmanship, and mathematical.[589] In order to see which of these corresponds with Hobbes's ideas, a short characterisation of each is given.

The theological, or idealistic tradition goes back to, at least, late antiquity and Neo-platonism.[590] In the idealistic doctrine the central idea is that understanding of the true nature of things, that is, forms, is explained as a process in which man's mind somehow catches the divine mind and imitates the activity of the divine intellect. In more Christian terms, God is the paradigm of knowledge in the following way: God knows things, because He makes them, but in Him knowing and creating happen simultaneously.

In the craftsmanship account, or experimentalist view of the maker's knowledge, which emerges in the Renaissance and was partly influenced by new ideas in painting,[591] the core idea is emulation. Because we can create a copy of something, for example of a rainbow, we make the knowledge in the sense that (re)construction or emulation are methods of validating knowledge.

The last strand, the mathematical, arises from the work of Proclus, who put forward the idea that '[t]he mathematician knows his truths because he himself has made them', and, as was explained earlier, 'Proclus emphasised the active role of the understanding in producing and projecting its objects, for mathematicals are constructions of the mind in a space constituted in the imagination'.[592]

There have been studies on Hobbes and the maker's knowledge.[593] I have found the works in the field helpful and share their basic intuition that in Hobbes genuine knowledge concerns objects that we have made and that this kind of knowledge is possible only in geometry and civil philosophy. However, there are also some points where I wish to disagree. In what follows, I will discuss two specific studies, of Child's and of Barnouw's. After this I will move to some more general aspects of the question of Hobbes and the maker's knowledge.

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curiosity that Galileo, in his *Dialogo sopra i due massimi sistemi del mondo, tolemaico e copernico*, introduces both strands of the maker's knowledge. The advocate of the idealist account of maker's knowledge is Salviati, and of the experimentalist account, Sagredo. See, respectively, Galileo 1953, 115 ('I believe, Simplicius, that your scruple arises ...') and 116 ('I have often considered ...').

589 Pérez-Ramon 1988, 57.

590 This dating is based on Pérez-Ramon, where he argues, that 'the principle [of *verum factum*] is present in pre-Socratic thought', and, second, that the idea was discussed also by the classical authors, for instance Plato (see *Cratylus* 391b and *Republic* 601e-602a). The problem with the latter is that it is not clear whether we should call this the maker's or the user's knowledge. See Pérez-Ramon, 1988, 50-55. Cf. Funkenstein 1986, 12. Another source, which Pérez-Ramon does not discuss, is Aristotle's notion of *nous poetikos* (on this, see Kosman 1992).

591 See, however, Pérez-Ramon 1988, 55-56.

592 Pérez-Ramon 1988, 56.

593 More specific studies include Child 1953 and Barnouw 1980. See also Watkins 1989, 46-47; Funkenstein 1986, 328-338; Pérez-Ramos 1988, 186-189; Jesseph 1999, 220-221; and Malcolm 2002, 511-512.

Child's pioneering work is still perhaps the most thorough philosophical study on the subject, but suffers from certain inaccuracies of which two will be discussed here. He claims, for example, that 'the civil philosopher cannot make the first causes of the commonwealth at all',[594] but it has been shown above that the opposite is true. Child's misconception is based on the idea that certain traits of human nature are the first causes of the commonwealth. To utilise some of the previous conclusions, Child's reasoning seems to run as follows. He sees human nature in materialistic and physiological terms, and therefore considers the matter of the commonwealth as natural bodies. When this is linked with Hobbes's argument that the knowledge of natural bodies will always remain hypothetical, Child's conclusion (that civil philosophers do not know the first causes of the commonwealth) appears sound but perhaps trivial. Another misconception is Child's intuitions on Hobbes's notion of the collective agent. It is not the case that 'the commonwealth is made by every man who belongs to it, every day in his life, by keeping of those covenants without whose keeping the commonwealth will perish'.[595] Instead, as some modern studies have shown, a commonwealth is a genuinely collective agent which is separate from its organic constituents.[596] This is the novel layer in Hobbes's analysis of politics. The first causes of the commonwealth are not its matter, but the rational generation of that very object called the commonwealth. In short, Child's analysis points in right direction, but he does not fully understand the meaning of making knowledge.

Another noteworthy analysis is Barnouw's. Though perhaps more a study of Vico than Hobbes, the deficiency of this reading is that it does not fully take into account the nature of the generation of causes. Barnouw writes: 'In the present context we cannot and need not go into the Hobbesian conception of civil law and sovereignty, according to which "we ourselves make the principle— that is, the cause of justice (namely laws and covenants)— whereby it is known what justice and equity are."'[597] This is to bypass an important point of Hobbes's later theory of knowledge, which has been discussed in detail above and has even been claimed to be decisive. Despite this, Barnouw's analysis has decisive merits, the emphasis on signs and, in particular, showing what kind of experience, according to Hobbes, is relevant in science. In *Elements*, Barnouw points out, Hobbes writes of two kinds of experience: 'the former being the experience of the effects of things that work upon us from without; and the latter the experience men have

[594] Child 1953, 280.

[595] Child 1953, 280-281.

[596] On this, see the recent discussion on Hobbes's notion of the artificial person and representation. Major contributions include Pitkin 1958; Gauthier 1969, Chapters III and IV; Baumgold, 1988, Chapter 3; Runciman, 1997, Part I, Chapter 2 and Part III and 2000; and Skinner 2002, Vol. III, Chapter 6. Child's reading would also benefit from Oakeshott's groundbreaking introductory essay to *Leviathan*, where this aspect of Hobbes's political theory is discussed.

[597] Barnouw 1980, 613 (the passage he is referring to is from *Leviathan* (XI, 50).

of the proper use of names in language'.[598] Though the explication is given over ten years after the distinction was made, it coincides with what has been discussed here. Lastly, in my view, Barnouw's version of the maker's knowledge could be described as a delicate articulation of Baconian maxim 'knowledge is power'. That is to say, to have (certain) knowledge of something gives its holder concrete power to do things, but what Barnouw's analysis misses is that this knowledge gives its holder, above all, power to create new things.

Returning to the primary question, characterising Hobbes's theory of knowledge as a maker's knowledge theory is as such a rather empty claim. A sensible question is what kind of account of the maker's knowledge Hobbes could be taken to support. On the basis of what has been said above, it may appear evident that of the three major strands, the mathematical account of the maker's knowledge could be the best candidate,[599] but a more thorough discussion is needed.

Hobbes's view of knowledge seems to come close to the idealistic theory of the maker's knowledge kind of account, because of his emphasis on the generative aspect of thinking and reasoning and, in particular, because, of the special features of his mature theory of knowledge. I do believe, however, that there are at least two obvious reasons why this line of interpretation is not valid.

The first is Hobbes's materialism. The idealist theory explains the acquisition of knowledge as the activity of the immaterial intellect. It is a well-known fact that Hobbes excludes this kind of explanation. The second objection relates to methodology. Hobbes rather firmly denies comparisons between man and God.[600] For God is fundamentally incomprehensible, it is of no use to build theories that seek to explain human nature by the attributes of God – or, what is more common, *vice versa*.

According to the second principal branch, we make the knowledge, because we are able to emulate or reproduce a process by experiment, for example, creating a vacuum. Hobbes's view that knowledge aims to produce something also seems similar to this account, but again it is possible to give an argument why this is not the case. The reason is Hobbes's attitude towards experimental knowledge.[601] Though in many places he praises the achievements of the study of nature, such as navigation and architecture, these skills are merely convenient not knowledge.[602] His point is well summarised in the discussion on comets in Chapter VIII of *Critique du 'De Mundo'*: even if those who

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[598] *Elements* VI.1, 40.

[599] Pérez-Ramon (1988, 56 and 186) explicitly links Hobbes with this tradition, though, as I shall argue, his (*ibid.* 58) linking of Hobbes with 'man's manipulatory capacity as *imitator Dei*' is problematic.

[600] The Chapter XXX of *Critique du 'De Mundo'* is helpful on this question. See also *Leviathan* III, 11 and *Liberty and Chance*, 18

[601] See Shapin and Schaffer 1985, especially 99-107, which is, however, instructive to read in the light of what Malcolm (2002, 187-189) says about the subject.

[602] See, for example, *Leviathan* XIII, 62.

study nature could agree on the causes of certain natural phenomena, they did not make the natural bodies, and thereforethey will never have certain knowledge of them.

Moving to a more fundamental question, there also appears to be the general reason why Hobbes's idea of knowledge is not well described by the idea of the maker's knowledge. What seems to be essential in the theory of the maker's knowledge and what both of the meritorious readings correctly point out in Hobbes, is that genuine knowledge is about things that we have made. Now, though Hobbes seems to agree with this, for example, by claiming that 'civil philosophy is demonstrable, because we make the commonwealth ourselves',[603] it is not so much knowledge or truth, but *certainty* that we make. This is the core of the more customary explanation of Hobbes's mature account of knowledge, which I call his epistemic conservatism.

CONCLUSION: HOBBES'S EPISTEMIC CONSERVATISM

This conclusion seeks to explicate two issues: what is meant by epistemic conservatism and how imagination participates in the acquisition of knowledge.

Aristotle says that all learning 'come[s] about from already existing knowledge'.[604] To him, the world was perfect and the aim of science was to find its real structure. This is in accordance with the classical conception of knowledge. We have certain beliefs, which for various reasons we take to be true. The task, then, is to justify and give reasons for our beliefs. Aristotle was nevertheless pluralist: the world, already natural, consists of different kinds of things, which should be studied with their own methods, which, again, had their own ways of reasoning. The plurality of reality did not, however, prevent Aristotle from developing a more general theory of reasoning and science. The outlines of this theory are given in *Physica*:

> When the objects of an inquiry, in any department, have principles, causes, or elements, it is through acquaintance with these that knowledge and understanding is attained. For we do not think that we know a thing until we are acquainted with its primary causes or first principles, and have carried our analysis as far as its elements. Plainly, therefore, in the science of nature too our first task will be to try to determine what relates to its principles.
>
> The natural way of doing this is to start from things which are more knowable and clear to us and proceed towards those which are clearer and more knowable by nature; for the same things are not knowable relatively to us and knowable without qualification. So we must follow this method and advance from what is more obscure by nature, but clearer to us, towards what is more clear and mora knowable by nature.[605]

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[603] *Six Lessons*, 'The Epistle Dedicatory', 184

[604] Aristotle *Analytica Posteriora* 71a1-2.

[605] *Physica* 184a10-21.

Philosophy, like such sciences as biology and history, is about finding first principles. These are, then, used that explain other things, whereas knowledge (*epistêmê*) is to understand *how* they explain something. It is, however, especially the task of philosophy to study first principles and Hobbes has a similar idea of philosophy and knowledge. Hobbes's theory of knowledge is conservative in the sense that there are a mass of facts that we know to be true about the world, human nature, and so on, which become scientific knowledge only after we know why they are true.[606]

It is possible to recapitulate some of the key ideas in the previous discussions by defining how Hobbes understood knowledge properly speaking. Genuine scientific knowledge is a combination of three elements. The basis of knowledge is experience, but this basis is not solid because the causes of things (i.e., bodies) that are the causes of phantasms remain uncertain. Therefore what we have are phantasms. Additionally, the correspondence with the external world should be understood more broadly than merely the correspondence with the material constitution of reality. Though ultimately everything real is just matter in motion, Hobbes's idea of correspondence is better characterised by saying that it is correspondence with the state of affairs.

The second element is the generation of knowledge by definitions. This is the construction of the truth of propositions, which is based on the coherence theory of truth and which is a kind of clarification of the state of affairs in question. However, and this is the salient point, aside from the coherence and correspondence components, there is the operational component, which means that we bring something totally new, say, a commonwealth, into the world on the basis of (theoretical) knowledge. The mature conception of knowledge, I think, is best manifest in Hobbes's civil philosophy.

As in geometry, in civil philosophy the objects of the discipline are created by the knowing subject who generates not only scientific knowledge, but the objects of knowledge.[607] We know what something is and especially its causes, because we start the process by generating the knowledge by definitions, which are linguistic manifestations of our conceptions, that is, imaginations. No matter that reality is nothing but matter in motion we are able to surpass the limits of experience by the use of imagination.

Lastly, two more questions need to be clarified. The first is the question of constructionism and constructivism. The reading of Hobbes's theory of knowledge articulated here, as well as some of the interpretations introduced, may give an impression that Hobbes's theory of knowledge has a constructionist flavour, that is, that our knowledge of the world is ultimately only a construction of the mind or a conceptual framework that appears to give an order to the phenomena of reality. I hope that the rephrasing of Hobbes's view of genuine scientific knowledge given above has explained why this is not the case. Though Hobbes may use language that alludes to something like

[606] Hobbes seems to hold this kind of quasi-Socratic attitude. See, especially, *Elements* (I.2, 21). See also Malcolm 2002, 153.

[607] See also Zarka 2001, 437.

this, for example, expressions like ‘to construct’ or ‘to generate’, he still always maintains that these constructions correspond to what I have called the state of affairs, that is, states of the world. In brief, though he does not always reduce all the phenomena to the materialist-mechanistic level, it does not follow that Hobbes is a constructionist.

The second point of clarification relates to the role of curiosity. In *Leviathan*, Hobbes defines it as follows:

> *Desire*, to know why, and how, CURIOSITY; such as is in no living creature but *Man*: so that Man is distinguished, not onely by his reason; but also by this singular Passion from other *Animals*; in whom the appetite of food, and other pleasures of Sense, by praedominance, take away the care of knowing causes.[608]

The passage suggests that this peculiar ‘Lust of the mind’ is constitutive to the acquisition of knowledge. Without the passion to know the causes of things, human beings would remain in the state of dullness. The ongoing analysis of Hobbes’s theory of knowledge does not seek to nullify the relevance of curiosity, but has concentrated on other aspects of the acquisition of knowledge. Curiosity is the major motivation in the acquisition of knowledge, but equally important is the cognitive role of imagination. Imagination gives concrete suggestions about what could be the causes and effects of various phenomena,[609] but because it is not restricted to past experience in the sense that memory is, or in the sense that the classical paradigm of knowledge was, it can create something that has not existed before. In sum, if curiosity prompts the lust for knowledge, imagination helps us to create knowledge *and* new objects, which are consolidated by the use of reason and empirical validation. In the next chapter, we turn to an aspect of this interplay, that is, to Hobbes’s accounts of art and style.

[608] *Leviathan* VI, 26. Cf. III, 9.

[609] For a similar claim, see Nauta and Pätzold, 2004.

VI ART AND STYLE

Wit and art, the two notions this chapter discusses, have not been central in Hobbes scholarship. It is only recently that the rationalistic picture of Hobbes has opened up to a more versatile analysis. Wit and art are the two sides of the same coin and this chapter of the thesis seeks to articulate the nature of their interrelation, which can be summarised by saying that wit is the psychological description of what many arts consist of. One way to open the discussion is to point out a peculiar occurrence of the word 'wit'.[610]

In 1573, Ralph Lever (died 1584) published a book entitled *The Arte of Reason, rightly termed, Witcraft*. Following the Aristotelian fashion, Lever's book is a compact presentation of the essentials of logic, but its peculiarity lies in a somewhat homespun tendency to produce a vernacular lexicon of logic. Lever's description of the central term 'witcraft' is a clear symptom of this tendency:

> Witcrafte ... If those names be alwayes accompted the best, which doe moste playnly teache the hearer the meayning of the thyng, that they are appoynted to expresse: doubtlesse neyther Logicke, nor Dialect can be thought so fit an Englishce worde to expresse and se foorth the Arte of reson by, as With craft is, seeing that Wit in oure mother tongue is oft taken for reason: and crafte is the aunciente Englishe woorde, whereby wée haue vsed to expresse an Arte; which two wordes knit together in Witcrafte,, doe signifie the Arte that teacheth witte and reason.[611]

Firstly, it is clear that for Lever, wit is a rational capacity, something that deals with, if not formally plausible, at least decent rational thinking. Secondly, it is a talent or a skill; something that can be learned only by practising the skill. Hobbes's understanding of wit shares the latter criterion, but not the former. Wit has an epistemic status, but it is closer to *prudentia* than *scientia*.

Art is another of Hobbes's notions which is rich in nuances. Sometimes he uses it in a general sense, when the term refers to the mastery of something. The opening of *Leviathan* is an example of this general use of the term: 'Nature (the Art whereby God hath made and governes the world) is by the *Art* of man, as in many other things, so in this also imitated, that it can make an Artificial Animal.'[612] Sometimes Hobbes uses the term in a clearly pejorative sense as something lower than philosophy and science, which

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[610] The word has a long and interesting history going back to *Beowulf*. For a short account, see *OED Online* (http://dictionary.oed.com), which lists seven entries of 'wit'. See especially the entry for 'wit' as a noun. On the Continental equivalents and the origins of the conception of wit, as well as its use in 17th-century British criticism and in Hobbes, see Spingarn 1957, xxix-xxxi.

[611] Lever 1573, A note to understand the meaning of new defined terms, term 'Witcraft'. For a discussion, see Howell 1952, 57-63.

[612] *Leviathan*, 'Introduction', 1.

are based on reason. The third major meaning Hobbes gives to the notion of art is inherited from classical and Renaissance ideas of arts where it referred to the acquisition of the subject matter and techniques of certain specific disciplines. In brief, the art of governing and of geometry is not the same thing as the art of rhetoric, which all differ from the art of sophistry.

The previous chapters have studied traditional areas of philosophy: human nature, language, and knowledge. These form the basis of the following chapter on method and argumentation. But a full understanding of this subject requires another inquiry: how Hobbes did understood style?

Style can be taken here to refer to both, style in philosophy and style in the arts, above all, poetry. The former will be the subject of the next chapter, but because Hobbes's philosophical style is often coupled with his ideas of literary style, this issue needs to be examined in some detail also here.[613] Secondly, literary style should be understood rather widely. It does not cover only works of fiction, but also other kinds of written works. This is another reason why a closer look at Hobbes's conception of arts is required. Through this, the analysis will also cover the distinction between the arts and philosophy, but before moving to the theoretical topics, a biographical note.

Throughout his life, Hobbes was interested in literature.[614] When leaving his school in Malmesbury Hobbes presented to his teacher Robert Latimer his translation of Euripides's *Medea*.[615] We also have some evidence of his literary commitments during the years in Oxford and during his first decades in the service of the Cavendish family.[616] Hobbes also wrote some poetry, his *De mirabilibus pecci* praising the hilly district near the Cavendish residence in Derbyshire. Though *De mirabilibus pecci* did not remain Hobbes's only actual contribution to poetry, his merits here do not lie so much in the practice, but in the theory of literature,[617] or in the words of a scholar: 'While the *Peak*

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[613] For some views about Hobbes's own style, see Nauta 2001, 35-36 and Rogow 1988, 65. For more general accounts, see Manley 1999 and Patey 1997.

[614] On Hobbes's literary career, see Watson 1955, 558; Brett 1971, 45-46; and Skinner 1996, 230-235. On his literary contacts, see Malcolm 2002, 243-244. On Hobbes's literary theory and different genres, see Thorpe 1940, Chapter V; Reik 1977, Chapter VI; Cantalupo 1991, 70-72; Prokhovnik 1991, Chapter 3. On Hobbes's influence on literary criticism, see Thorpe 1940, Chapters VI-X and Spingarn 1957, xxxvi. Thorpe's central argument is plausible, but his reading of Hobbes is one sided. When emphasising the modern aspects of Hobbes's aesthetic ideas, he does not put much emphasis on the fact that some of them, for example, metrical requirements, are classical.

[615] *Brief Lives*, 232.

[616] *The Verse Life*, 246.

[617] This appears to stem from the general tendency of the 17th century, where the theory and practice of poetry started to go separate ways. On this, see Prokhovnik 1991, 101. The translator of the poem seems to disagree with my conclusion. In an advertisement in the beginning of the 1683 translation of *De Mirabilibus Pecci*, the anonymous translator writes: 'This Latine Poem, writ by the famous Mr Thomas Hobs of Malmesbury, hath got such reputation, that many English Readers had a great desire to be acquainted with it, for whose sakes it is now translatd into English. Reader farewell, but do not forget to

[*De Mirabilibus Pecci*] has little if any value as poetry and reveals nothing of Hobbes's maturing thought, the poem is not without interest'.[618] Therefore, if Hobbes's literal practice remains a curiosity, the study of his views on literature theory contribute to our understanding of his philosophy.

In addition to some passages in his major works,[619] much of Hobbes's ideas about literature can be found in two writings on the theory of poetry: *The Answer of Mr Hobbes to Sir William Davenant's Preface before 'Gondibert'*[620] and the introductory essay to Hobbes's translation of *Ilias and Odyssey* entitled 'Concerning the virtues of a heroic poem'. Though in principle about poetry, the ideas put forward in these writings can be applied not only to different genres and forms of literature (such as epic, drama, sonnet, or epigram), but also to other arts such as history and oratory.

A note on the word poetry is needed. In what follows, poetry will be used in two major senses: as a general term referring to any kind of written work with some literary quality, and as a specific term referring to poetry as it is understood also today. Though it is sometimes hard to say how Hobbes uses the term, his vagueness reflects the 17th century understanding of poetry and literature. Prokhovnik offers a clarification.[621] First, though there were many debates on the nature of both, criticism and philosophy, they were strictly distinguished from each other in the 17th century. Second, the term 'literature' had three major meanings: it could refer to *trivium* (grammar, logic, and rhetoric), that is, to the study of language; to philosophical commentaries; and to fictive writing (literature as it is understood nowadays). Third, poetry was a general term and poetry an appropriate subject in the study of language.

The standard view of Hobbes's role in the development of literary theory was put forward by Spingarn, who suggested that Hobbes is significant for the criticism of the time, but in his thought there is no place for imagination or creativity; that Hobbes did not note the force of imagination to mould things.[622] Another, and not totally separate, characterisation says that Hobbes 'is a passionate neo-classical', who 'deliberately

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peruse thath excellent Translation of Hoe by Mr Hobs; The most exact and best translation that e'er I readout of Greek to English.

There is lately printed in two Volums in Octavo, Mr. Hobes his life at large by Doctor Blackborn, and eight Tracts more of Mr. Hobes. Both Volums sold for twelve shillings' (*De Mirabilibus Pecci*, 3).

[618] Rogow 1988, 68.

[619] *Elements* X.4; *Leviathan* VIII and *Concerning Body* IV.XXV.8. There are also some remarks in a letter to Edward Howard (*Correspondence* Letter 184, 704-705).

[620] *Gondibert* was a long heroic poem, which Sir William Davenant (1606-1668) composed in 1640s and which Hobbes commented in the mentioned work. Of Davenant's life and works, see Mary Edmond, 'Davenant , Sir William (1606–1668)', Oxford Dictionary of National Biography, Oxford University Press, 2004 [http://www.oxforddnb.com/view/article/7197, accessed 10 May 2006] and sources there.

[621] Prokhovnik 1991, 57-59.

[622] Spingarn 1957, xxviii. Cf. Reik 1977, 133-5. See also Selden 1974 and Woodfield 1980.

attacks the old style of English verse'.[623] Instead of analysing Hobbes's neo-classicism (or explaining what the doctrine meant during the time of Hobbes) the author moves on to explain the causes of Hobbes's conversion 'to classicism and his rejection of the poetic conceit [which] can be traced back to his first full-time preoccupation with philosophy in Paris'.[624] In Paris, Watson explains, Hobbes dedicated himself to the development of his philosophical ideas in 'the intensely empirical atmosphere of the Cartesians grouped around the Abbé Mersenne.'[625] After this, rather disconnected summary, Watson proceeds on the path that has become conventional wisdom and emphasises that something happened during the writing of *Leviathan*. The core idea of Watson's interpretation is expressed as follows: 'There is nothing unlikely in the proposition that a reading by Dryden of Hobbes's philosophic works in the late 1650's and 1660's was one decisive cause of his revolution of poetic diction'. The outcome then is the same as Spingarn's: Hobbes had an indirect impact on the development of literary theory in mid-seventeenth century England. A more precise view that reaches roughly the same conclusion, is provided by Brett, who writes:

> There is nothing in this [that is, Hobbes's theory of literature] contrary to the traditional theory of the period. On the first of these points Hobbes is echoing Sidney, who wrote of the poet in his *Apologie for Poetrie*: "whatsoever the Philosopher sayth should be doone, hee [i.e., the poet] giveth a perfect picture of it in some one, by whom hee presupposeth it was doone. So as hee coupleth the generall notion with the particular example." The second point reaffirms Bacon's definition of "the office of Rhetoric" in the *Advancement of Learning*, which is" ... to apply and recommend the dictates of reason to imagination in order to excite the appetite and will.[626]

Brett, then,gives a simple answer to the question to what Hobbes's contribution to literary criticism is based on, namely on his 'empiricist psychology [...] brought into use to explain the literary imagination'.[627] The ideas introduced above find a careful treatment Thorpe's pioneering study of Hobbes's aesthetics, where both neo-classicism and the modern psychological views are discussed. Thorpe writes:

> In *The Answer to Davenant* and in *The Virtues of an Heroic Poem*, though he does not attack any writer or any system, Hobbes quietly ignores set codes, building his critiques on the psychological principles he has now advanced. It is true that some of these principles run a broad parallel to seventeenth-century neoclassic theory. He evolves again theories of unity of action, verisimilitude, and decorum. He is in accord with the current dictum that poetry is for the delight

[623] Watson 1955, 559. Prokhovnik (1991, 88-100), who also labels Hobbes a neo-classicist, points out that he strongly emphasised didactic function of poetry.

[624] Watson 1955, 559.

[625] Watson 1955, 559. For a critical note on Watson, see Gang 1956.

[626] Brett 1971, 46.

[627] Brett 1971, 47.

> and instruction of mankind; in spite of his strong tendency toward realism, he admits a species of ideal imitation.[628]

Thorpe's summary is in accordance with the original text. Hobbes's theory of art and style could be described by two epithets: imitation and naturalism. This is summarised, for instance, in *The Answer to Davenant*: 'For in him that professes the imitation of nature, as all poets do, what greater fault can there be, than to betray an ignorance of nature in his poem'[629] and again in *The Virtues of an Heroic Poem*: 'For a Poet is a painter, and should paint actions to the understanding with the most decent words, as painters do persons and bodies with the choicest colours, to the eye'.[630] However, both imitation and naturalism should be understood in a specific way, which has some points of contact with Hobbes's psychology.

A sober mind should not to go beyond experience, this is clear, but, as I have tried to explain in earlier chapters in relation to Hobbes's psychology and epistemology, this tenet should not be taken literally. Imitation does not mean that a poet is only allowed to describe things as they are. Instead, '[b]eyond the actual works of nature a poet may now [that is, in the time of Hobbes] go; but beyond the conceived possibility of nature, never'.[631] This is a peculiar kind of imitation (Thorpe's 'species of ideal imitation'), which is bound to the sphere of the natural world, but not in a narrow empiristic manner.

The second major quality of art and style, naturalism, refers not so much to the idea that, as human inventions, art and style could not transcend sensation, but to the way in which reality should be described. The expression of the poet, Hobbes writes, 'is nothing but experience and knowledge of nature, and specially human nature; and is the true and natural colour'.[632] In particular, naturalism refers to 'novelty of expression', by which Hobbes means that a poet should economically use ordinary words in a way that unveils something unexpected.[633]

In what follows, the focus will be on Thorpe's intuition that the originality of Hobbes's aesthetics is in 'psychological principles he has now [that is, the 1650s] advanced'. This seems to fit in well with the general picture of Hobbes, but again the original text may surprise us by its complexity.

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[628] Thorpe 1940, 156.

[629] *The Answer to Davenant*, 453.

[630] *The Virtues of an Heroic Poem*, vi.

[631] *The Answer to Davenant*, 452.

[632] *The Answer to Davenant*, 452.

[633] *The Answer to Davenant*, 453-454.

WIT AND ART

Hobbes's theory of human nature says that all thinking is the succession of phantasms and that a wise person is the one who notes the similarities and the differences between phantasms. This ability to observe similarities and dissimilarities between things generate coherent thoughts and is made better by the acquisition of certain pre-linguistic forms of reasoning, but above all by language and reasoning. Hobbes's notion of wit tries to describe this emergence of coherence from a particular point of view.

It is not an accident that when Hobbes starts to discuss some developed forms of human thinking, he directly adopts the idea of succession and comparison.[634] It would, however, be a simplification to understand this only in pre-linguistic terms. Succesion and comparisons are also about how to express thoughts with a certain type of language. Witty thinking, it appears, is something above a clear series of memories or even political plotting, but below rational philosophical arguments.

In Hobbes, wit is used to describe two things: types of human abilities and these abilities in particular.[635] In Chapter VIII of *Leviathan*, Hobbes distinguishes between natural and acquired wit. The former is central in the arts, whereas reason, the only acquired wit man may possess,[636] is typical of philosophy. The distinction between natural and acquired wit is, however, misleading in one respect.

Wit, according to Hobbes's redefinition, is an intellectual virtue. This means that wit 'is valued for eminence', that is to say, a virtue is some kind of an excellence that 'men praise, value, and desire should be in themselves', and because it is an intellectual virtue, it is some kind of excellence of mind,[637] not, say, the ability to kill a buffalo with one's bare hands. What is, however, salient in the coupling of wit and virtue is the more familiar aspect of virtue, namely that virtues are in some degree socially determined. This raises the theoretical point according to which virtue is a relational concept: we do want to be like others. If A and B behave in a certain way that is taken to be something worth attending to; for example, if A and B speak French, C sees this activity as virtuous, even though C may think that Russian is a more elegant language.[638] Virtues reflect social valuations in a more or less direct and relevant way. The next issue the notion of virtue introduces is the status of intellectual virtues among Hobbes's epistemic forms. Lastly, and this will be discussed in the latter section of the chapter, there is a contrast that arises

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[634] Hobbes uses same kinds of wordings: 'observe their differences, and dissimilitudes […] are said to have a *good Judgement*.' (*Leviathan* VIII, 33. Cf. *Elements* X.4, 61-2). For a discussion, see Reik 1977, 144-5.

[635] For discussion of Hobbes's conception of wit, see Spingarn 1957, xxviii-xxxi.

[636] *Leviathan* VIII, 35.

[637] *Leviathan*, VIII, 32.

[638] The example derives from the works of Dostoyevski in which the fashion of the 19th-century Russian nobility to speak French instead of their native tongue is often satirised. See especially *The Possessed*.

when Hobbes's idea of intellectual virtues is contrasted with relation to his naturalistic conception of style. If Hobbes claims that a writer should avoid scrupulous, foreign expressions, and should aim at a simple but innovative – and it can be added, vernacular – style, purified of vain snobbery and immediately clear for the reader, his emphasis on social factors is, if not contradictory, at least problematic.

NATURAL WIT AND VIRTUE

Natural wit is based on experience and 'consisteth principally in two things; *Celerity of Imagining* (that is, swift succession of one thought to another;) and *steddy direction* to some approved end'; in brief, it 'consisteth in comparison', which involves two operations: fancy (or combining) and judgement (or distinguishing).[639]

The second quality of natural wit ('a *steddy direction* to approved end') is interesting. Hobbes's general idea here is that:

> necessary to a good fancy, there is required also an often application of his thoughts to their End; that is to say, to some use to be made of them. This done; he that hath this Vertue, will be easily fitted with similitudes, that will please, not onley by illustration of his discourse and adorning it with new and apt metaphors; but also, by the rarity of their invention.[640]

What is clear is that all thinking must be regulated and, additionally, that the regulation is done by an appropriate language. What is not clear is what kind of appropriate languages there can be, and, especially, what is an approved end. These questions must however be postponed until fancy and judgement are defined in the context of wit and arts.

Thus far the thesis has discussed three different kinds of fancy that appear in Hobbes's philosophy. The first is fancy as a part of imagination and the second is the fancy we find in the working of memory. The third is fancy as a part of generation of genuine scientific knowledge. There is one more conception of fancy in Hobbes: fancy as a prime mover of poetry and, more general, in good literary style.[641]

Poetic fancy can be considered a form of conceivability, though different from those discussed earlier. To define it broadly, a poetic fancy is the ability to express one's ideas in a smooth language that is in harmony with, first, the rules of genre, and, second, with the subject a text speaks of. It is related to style and finds a number of different

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[639] *Leviathan* VIII, 32. It is likely that Hobbes's notion of wit was influenced by such literary men as Ben Jonson, see Reik 1977, 15. However Reik's claim (*ibid.*) that Hobbes belongs 'to the end of the Renaissance period rather than to the Restoration or the beginning of the Enlightenment in England' is an odd statement – especially in the light of what she writes a few pages later: 'It is true that Hobbes was no Renaissance man, no poet-courtier-prophet-statesmen-lover' (Reik 1977, 19). A simpler answer could be that Hobbes's ideas on literature and art were more traditional (or, classical) than his ideas on philosophy.

[640] *Leviathan* VIII, 33.

[641] For a summative discussion, see Hinnant 1976.

forms, depending on what kind of literature we are dealing with. In relation to arts, fancy could be characterised as the similarity of surprise, because Hobbes emphasises that a writer should aim at novelty of expression. This does not mean, as Hobbes underlines, adopting foreign words and idioms. Instead a writer should use language familiar to his readers and show how ordinary words find new meanings. This 'copious imagery discreetly ordered' is the basis of poetic similarities.[642] It is not similarity in the semantic sense, but the similarity of emotions and the excitation of mind between a performer and a receiver. Fancy focuses on this and it seeks by language to raise a certain mood in the reader's mind. Fancy, then, consists of certain technical skills that can be acquired by practising writing, but especially by reading masters like Homer and Virgil. Regardless of Hobbes's swift characterisations, by itself fancy is not of much use, but needs regulation of judgement.

Judgement is in a number of ways a more complicated operation in Hobbes's theory of wit. In its basic form it is a capacity to make distinctions. Aside from this formal definition, judgement is in a sense prior to fancy, because 'Fancy, without the help of Judgement, is not commended as a virtue, but the later which is Judgement and Discretion, is commended for it selfe, without the help of Fancy'.[643] Judgement is also important when trying to understand the second part of Hobbes's general definition of wit. Judgement regulates fancy in two ways. First, by evaluating the formulations of fancy on the basis of the criteria of a discourse, say, comedy. Second, judgement evaluates the contents of fancy and their appropriateness to serve human flourishing. What this means in practice will be explained below when discussing poetic virtues, here it is sufficient to add that the regulative function of judgement is discourse-dependant, that is, what may pass in rhetoric may not be appropriate to poetry.

With these remarks it is possible to give an account of the epistemic status of wit. Natural wit (fancy and judgement) is based on experience only, not reason. This Hobbes confirms in the *The Answer to Davenant*:

> Time and education beget experience; experience begets memory; memory begets judgment and fancy; judgment begets the strength and structure, and fancy begets the ornaments of a poem. The ancients therefore fabled not absurdly, in making Memory the mother of the Muses. For memory is the world, though not really, yet so as in a looking-glass, in which the judgment, the severer sister, busieth herself in a grave and rigid examination of all the parts of nature, and in registering by letters their order, causes, uses, differences, and resemblances; whereby the fancy, when any work of art is to be performed, finds her materials at hand and prepared for use, and needs no more than a swift motion over them, that what she wants, and is there to be had, may not lie too long unespied.[644]

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[642] *The Answer to Davenant*, 449.

[643] *Leviathan* VIII, 33.

[644] *The Answer to Davenant*, 449.

Hobbes's theory of natural wit, then, explains the psychology of the creative process. The other aspects of wit, coupling it with intellectuality and social behaviour, are however also important, because they reveal certain valuations and ideals, which Hobbes holds, and, again, which wit as an intellectual virtue is supposed to reflect.

The answer to the question posed in the introductory part of this section is relatively simple. Wit belongs to the class of knowledge of facts, but in a special way. Whereas, for example, truths in physics are, at their best, empirical generalisations, the expressions of wit, like those in poetry, are felicitous descriptions of human nature. Their reliability is poor, but they give some idea what human nature is, say, that men are vainglorious. Wit, as a capacity, however, is valued. Hobbes's reflections seem to suggest that people who are able to express themselves in a clear and elegant way have a some kind of gift or human excellence, which should not be taken as insignificant.

However, in a letter Hobbes seems to contradict to what he has written in *The Answer to Davenant*. He writes: 'For what authority there is in wit? A jester may have it; a man in drink may have it; be fluent over night, and wise and dry in the morning. What is it? Or who can tell whether it be better to have it or be without it, especially if it be a pointed wit?'[645] Hobbes's note is apt folk-psychology. Persons happy in the haze of a drunken hour are sometimes swift, but naturally this is not to be compared with proper and serious poetry. Authentic authority of wit and of poetry is of certain sort. Here a summative note on what constitutes this authority is sufficient. The mastery of wit, consists of a right balance between fancy and judgement and on presenting certain moral ends and in this way both, the entertaining and the pedagogical function of wit is fulfilled.

Wit, it can be rephrased, constitutes art, but a consequent question arises: what is art? Some general remarks were given, but in what follows I will try to explain not only the background of Hobbes's reflection of art, but also what arts consist of and what the status of the arts is in Hobbes's thought.

HOBBES'S CONCEPTION OF THE ARTS

It is a general view that the classical curriculum of *trivium* and *quadrivium* slowly eroded when we reach the 17th century.[646] Whether or not this is really so, Hobbes's conception of art had its predecessors. In the opening of pages of Part II of his monumental *Reason and Rhetoric in the Philosophy of Hobbes*, Skinner reflects on the question of intellectual origins of Hobbes's thinking:

> Although this view of Hobbes as 'formed' by the scientific revolution is widely shared, it is part of my purpose to suggest that there is something misleading about it. [...] If we re-examine

[645] *Correspondence* Letter 184, 704-705. For Howard, see 'Biographical register', in *Correspondence* 839-840.

[646] For a balanced view of the development, see Serjeantson 1999.

> Hobbes's life and studies during his earlier years of obscurity, and if we reflect on the range of works he published prior to the appearance of *De Cive*, we find that his intellectual formation was overwhelmingly indebted not to the culture of science but rather to the humanist literary culture.[647]

My aim here is not to contribute to this question, but to study how Hobbes understood the arts, which were important in the humanist curriculum Skinner speaks of.[648] In his essay on humanism in a textbook, Kristeller offers a compact treatment of the subject:

> The word 'humanity' and its derivatives were associated with 'liberal' education by several Roman writers, especially Cicero and Gellius. The term was revived by Petrarch, Salutati and others in the fourteenth century, and by the middle of the fifteenth century it came to stand for a well-defined cycle of studies, called *studia humanitatis*, which included *grammatica*, *rhetorica*, *poetica*, *historia* and *philosophia moralis*, as these terms were then understood. Unlike the liberal arts of the earlier Middle ages, the humanities did not include logic or the *quadrivium* (*arithmetica*, *geometria*, *astronomia* and *musica*), and unlike the fine arts of the eighteenth century they did not include the visual arts, music, dancing or gardening. The humanities also failed to include the disciplines that were the chief subjects of instruction at the universities during the later Middle Ages and throughout the Renaissance, such as theology, jurisprudence and medicine, and the philosophical disciplines other than ethics, such as logic, natural philosophy and metaphysics.[649]

This should not however mislead us. Firstly, as Kristeller points out, the Renaissance was just one of many intellectual currents of the time. Scholastic philosophy in its many forms still stayed in the arena and developed. Secondly, as Kristeller points out in his article, a separate disciplinary evolution (especially in philosophy) took place, though this was influenced by humanism. Thirdly, and this Kristeller does not mention, though logic, in its narrow, terministic sense, was looked down on in humanist education, this does not mean that its questions and problems were not discussed. Grammar and more broadly philological inquiry touched on many of the questions of logic. These general remarks should be kept in mind when analysing Hobbes's conception of the arts.

Hobbes actually has two classifications of art:[650] a taxonomical and psychological one based on the balance between fancy and judgement. These two classifications, of course, come together, but there is reason to analyse them separately because this reveals certain background ideas of Hobbes's theory of the arts.

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[647] Skinner 1996, 216-217.

[648] The notion of art can, of course, be traced back to Aristotle and his notion of *technê*, which can be translated as art, skill, or technique. See *Ethica Nicomachea* 1105a22-1105b2; 1140a1-24 and 1197a4-11.

[649] Kristeller 1988, 113-114. Kristeller refers to Cicero's *Pro Archia* I.I-II.4 and Aulus Gellius's *Noctes Atticae*, XIII.17.1. For how the humanistic disciplines were understood, see Kristeller 1988, 118-127.

[650] See *Leviathan* VIII, 33-34. Cf. *Critique du 'De Mundo'*, I.3, 107.

The taxonomic classification says that the arts include history, poetry, music, and rhetoric, or at least that is what we find when we combine the table of sciences in *Leviathan* and the preceding Medieval and Renaissance taxonomies.[651] Elsewhere however, Hobbes adds logic and geometry to the arts.[652] These characterisations raise at least two questions: why does Hobbes speak of logic and geometry as arts, and what is the basis of his classification? The short answer is that both refer to the traditional understanding of disciplines as a part of the liberal arts, and, in particular, logic refers here to the broad sense of the term as it was understood in the Medieval and Renaissance curriculums.[653] Furthermore, Hobbes's characterisation of geometry as an art needs to be taken to refer to the first meaning of art, mentioned in the introductory section, that is, art as a general mastery and not to geometry as a part of the *quadrivium*. What is perhaps already clear is that Hobbes's treatment of the arts corresponds only loosely with the strict educational sense of the Medieval and Renaissance conceptions, and is instead a distant heir of the Renaissance idea of art as mastery.

The two arts Hobbes discusses more broadly are history and poetry. He mentions other arts, but the discussion is not as systematic as in the case of history and poetry. Additionally, when Hobbes writes on rhetoric (or oratory, or eloquence), instead of analysing the art itself, he concentrates on criticising eloquence. In the case of music and, perhaps, astronomy, the problem is that Hobbes's treatment is scarce.[654] In the table of science, music stands side by side with optics.[655] Both belong to the branch of natural philosophy that studies 'consequences from the qualities of *animals in general*', and whereas optics studies 'consequences from *Vision*', music studies 'consequences from *Sounds*'.[656] Taking into account the fact that Hobbes wrote two treatises on optics, that he quite often speaks of it in a positive fashion, a reader finds his taciturnity about music strange, but perhaps he is here following the intellectual fashion of the age. Concerning astronomy, it is safe to conclude that Hobbes considered it a part of natural philosophy,

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[651] Howell (1956) offers a viewpoint worth mentioning. In the introduction of his work, he points out that in the 16th and the 17th century, poetry, rhetoric, and logic were understood as the principal forms of communication. Of these poetry was the figural way, rhetoric and logic the literal ways to communicate. Only later were the three separated. There is, to my mind, traces of this kind of thinking in Hobbes's discussion of these three arts.

[652] *Critique du 'De Mundo'* I.

[653] A useful introduction to the notion of art is Gilbert 1960 (especially Chapter two). Arts as a part of the medieval curriculum originates in the handbook and commentary tradition of Rome in the early centuries AD and in particular Martianus Capellas's *De Nuptiis Mercurii et Philologiae* written in the early fifth century (see Reynolds and Wilson 1991, 32-33).

[654] There is some evidence that Hobbes was interested in music both as a listener and a practitioner. Aubrey writes that 'Mr T.H. was much addicted to music, and practised on the bass viol' (*Brief Lives*, 234).

[655] The idea of music as a part of natural philosophy is also found in an earlier work of Hobbes. In *Critique du 'De Mundo'* (I.1, 106), he says that music belongs to the mathematical part of philosophy.

[656] *Leviathan* IX, 40.

and his conception of astronomy appears to bear only an ostensive resemblance to the older conceptions of astronomy.

If we move to the second major classification, the psychological one, a summary is provided in a paragraph of Chapter VIII of *Leviathan*, which tells the following. In good poetry a writer should always look for a combination of fancy and judgement, so that the former dominates, whereas in good history fancy is an instrument of style and the judgement must dominate.[657] In orations, whether aimed to praise or condemn, the fancy is again predominant, but judgement must be used to decide 'what circumstances make an action laudable, or culpable', when in exhorting or pleading it depends on the particular situation which one is to be used.[658]

To conclude, though Hobbes's discussion of the arts may appear confusing, it is safe to say that his conception of the arts is a hybrid of the classical, Medieval, and Renaissance ideas on the arts. Secondly, Hobbes's discussion concentrates on two arts, history and poetry.

HISTORY AND POETICS

Hobbes defines history as 'the Register of *Knowledge of Fact*'.[659] It is not listed in the table of sciences, but Hobbes speaks of it briefly in Chapter IX of *Leviathan*.[660] Firstly, history can be of two kinds, natural and civil. Natural history 'is the History of such Facts, or Effects of Nature, as have no Dependence on Mans *Will'* and civil history 'is the History of the Voluntary Actions of men in Common-wealths'.[661] This division is generally correct, but misses some forms of history we are able to find from the works of Hobbes. Hobbes's own historical works include the translation of Thucydides' *History of the Peloponnesian War* with an introductory essay, *Behemoth*, and *Historia Ecclesiastica*.[662] To these can be added numerous fragments in other works, say, Hobbes's histories of Western philosophy that appear in Chapter XLVI of *Leviathan* and

[657] See also *Thycudides*, xx.

[658] *Leviathan* VIII, 33.

[659] *Leviathan* IX, 40. On Hobbes and history see the collection of the essays edited by Rogers and Sorell (2000), especially Schuhmann's (2000) essay. On the sources of Hobbes's conception of history and his idea of history writing, see also Skinner 1996, 235-236.

[660] Rogow (1988, Chapter IV) gives a detailed discussion of the translation process of Thucydides. Some scholars have emphasised similarities between Hobbes's and Bacon's view of history. See Rogow 1988, 67 and Bunce 2003, 100. The latter also emphasises the role of Diodorus Siculus and John Dee. Both works, Siculus's history and Dee's 1570 translation of Euclid which included a short of history of mathematics, are in the *Chatsworth Catalogue*, see (respectively), II, 41 and 99.

[661] *Leviathan* VIII, 40.

[662] Vaughan (2002) has proposed that *Behemoth* is a concrete example of Hobbes's educational programme and in his work Vaughan sees history as a form of education.

in *Behemoth*[663] and a legal history contained in the *Dialogue*. These are all sources on how he understood history. The second point is that the distinction in Chapter IX of *Leviathan* omits ecclesiastical history, which is an important part of Hobbes's philosophical project. Thus though history is not a science in the strong sense of the word, it has many roles in Hobbes's philosophy.

Whether it is ecclesiastical or a history of animals, Hobbes took history to have certain general features. First, history deals with belief and faith. Hobbes writes:

> To *have faith in*, or *trust to*, or *beleeve a man*, signifie the same thing; namely, an opinion of the veracity of the man: But to *beleeve what is said*, signifieth onely an opinion of the truth of the saying. But wee are to observe that this Phrase *I beleeve in*, as also the Latine, *Credo in*; and the Greek *πιστέυω ἔις* are never used but in the writings of Divines. In stead of them, in other writings are put: *I beleeve him*; *I trust him; I have faith in him; I rely on him*: and in Latin, *Credo illi, fido illi*: and in Greek, πιστέυω αὐτὼ:[664]

History is a discourse based on witnessing and testimony. The use of the Christian faith as a paradigm of this kind of discourse would be puzzling, but Hobbes's critical attitude towards the study of the Bible is helpful here. The Bible is written by man and therefore we should be cautious about what is said in the book, not everything is the word of God, but many parts of the Bible, for instance the Pentateuch, are words concerning God.[665] It is not then a surprise when Hobbes a few lines later concludes that:

> And so it is also with all other History [than the history in Scriptures]. For if I should not believe all that is written by Historians of the glorious acts of *Alexander* or *Caesar*, I do not think the Ghost of *Alexander*, or *Caesar*, had any just cause to be offended; or anybody else, but the Historian. If *Livy* say the Gods made once a Cow speak, and we believe it not; wee distrust not God therein, but Livy.[666]

This gives a fairly clear idea of the incompleteness of historical inquiry, and what Hobbes simply suggests is criticism.[667] The article on the subject matter of philosophy in *Concerning Body* summarises the point: '*history*, as well *natural* as *political* [is excluded

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[663] *Behemoth* 277-281.

[664] *Leviathan* VII, 31.

[665] The distinction appears in *Leviathan* XXXVI, 222.

[666] *Leviathan* VII, 32. Curley (Hobbes 1994, 37, note 4), following Tricaud (Hobbes 1971, 63), has commented the passage. Curley argues that Livy does not say anywhere exactly what Hobbes claims he says, which is incorrect. Livy (1929, II, 35) writes how cows speak. Secondly, Curley argues that the example is not 'well chosen' in the sense that it is historically incorrect. Perhaps so, but it can be considered well chosen from another point of view: it is really an effective illustration of how uncritical men, even educated ones, can be. Thirdly, Curley's further remark, namely that 'different difficulty' would emerge, if only Hobbes had chosen to use 'the analogous story of Balaam and the ass' (for the story see *Numbers* 22:28-30) remains obscure.

[667] Particularly instructive is his discussion of the translation history of Thucydides' *History of the Peloponnesian War*. See *EW* VIII, viii-ix.

from philosophy, because], though most useful (nay necessary) to philosophy'.[668] From this it does not follow that there is not a good history or even less that historians should not follow certain principles in their work. Before dealing with the three specific forms of history Hobbes distinguishes, a remark on the other principal art he discusses.

As already noted, throughout his life Hobbes showed an interest in literature. But what this precisely means is unclear. Some earlier studies have emphasised the role of the art of rhetoric in Hobbes,[669] although his attitude towards rhetoric is often considered controversial. One, rather typical, characterisation is given by Rogow, who writes that Hobbes considered rhetoric as 'the impassioned and emotional appeals of demagogues (such as those of Cleon in the *History*)'.[670] In the second sub-section below, this view is not so much questioned as complemented by introducing an analysis of Hobbes's theory of poetry.

NATURAL, CIVIL, AND ECCLESIASTICAL HISTORY

In *Leviathan*, Hobbes articulates a special place among the arts for history in the following fashion: '[i]n a good History the Judgement must be eminent; because the goodnesse consisteth, in the Method, in the Truth, and in the Choyse of the actions that are most profitable to be known. Fancy has no place, but onely in adorning the stile'.[671] History, though based on believing to someone's word, should be governed by judgement, which can itself be an intellectual virtue and as such is then a sovereign part of a rational inquiry. Even so, Hobbes appears to think that even good history can at its best give examples that illustrate philosophical ideas. For instance, in *Leviathan* he writes that:

> [T]he Latines did alwayes distinguish between *Prudentia* and *Sapientia*; ascribing the former to Experience, the latter to Science. But to make their difference appeare more clearly, let us suppose one man endued with an excellent naturall use, and dexterity in handling armes; and another to have added to that dexterity, an acquired Science of where he can offend, or be offended by his adversarie, in every possible posture, or guard: The ability of the former, would be to the ability of the later, as Prudence to Sapience; both usefull, but the latter infallible. But they that trusting onely to the authority of books, follow the blind blindly, are like him that trusting to the false rules of a master of Fence, ventures praesumptuously upon an adversary, that either kills, or disgraces him.[672]

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668 *Concerning Body* I.1.8, 10.

669 Johnston 1986, Prokhovnik 1991, and Skinner 1996.

670 Rogow 1988, 79. The history is, almost needless to add, Thucydides's history of Peloponnesian wars.

671 *Leviathan* VIII, 33.

672 *Leviathan* V, 22. For somewhat more concrete reflections, see the famous passage that civil philosophy is no older than Hobbes's *De Cive* (*Concerning Body*, 'Epistle Dedicatory', ix) and the critique of imitation (*Leviathan* XXIX, 170). Another well-known, if a less straightforward, critique is

As a rule of thumb, to establish political philosophy in history is a chimera, because '[s]ignes of prudence are all uncertain; because to observe by experience, and remember all circumstances that may alter the successe, is impossible'.[673]

In a similar vein, natural history can hardly be anything more than illustrations. There is, however, a function that natural history can fulfil and which Hobbes brings out, for example, while discussing the study of comets in *Critique du 'De Mundo'*. He notes that one of the errors of scientists who studied comets was that they did not give appropriate attention to the history of the study of comets. If they had done this, they would have understood the possible causes of some features of comets better.[674] In brief, aside being illustrative history can also give basis for empirical generalisations.

A representative treatment of the method of history is Hobbes's introductory essay to his translation of Thucydides in whom 'the faculty of writing history is at the highest'.[675] Thucydides is the culmination of another maxim of Hobbes's historiography, namely that the historian can take sides, but in order to avoid becoming fixed in one position he must remain an outsider. This is what Hobbes praises in Thucydides when introducing his analysis of democracy.

History is above all then educational: 'the principal and proper work of [civil] history' is 'to instruct and enable men, by the knowledge of actions past, to bear themselves prudently in the present and providently towards the future'. More specifically, a historian, such as Thucydides, can make the 'auditor a spectator', that is, to describe the past in such a way and in such an order that a reader can feel that he lives in the throes of the actions. However, this is not mere entertainment, which Hobbes despises: 'for the greatest part, men came to the reading of history with an affection much like that of the people in Rome: who came to the spectacle of the gladiators with more delight to behold their blood, than their skill in fencing'.[676]

Let us move from the person of the historian to his narration. The virtues of the historian are truth and elocution, which are the soul and body of history; 'The latter without the former, is but a picture of history; and the former without the latter unapt to instruct'.[677] Truth, Hobbes continues, is present especially in Thucydides's frankness and ability to speak against the times. Instead of writing to 'win present applause, as was the

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Hobbes's discussion of political philosophy in *On the Citizen* ('Preface to Readers, 7-8). The assignment of fencing to sovereign conduct also appears in *On the Citizen* XIII.8, 145, where Hobbes refers to Demosthenes's *Phillipici* (I.40-1) as a source of the idea. Raylor (2000) offers some historical and theoretical insights how the last sentence of the quotation could be understood.

[673] *Leviathan* V, 22.

[674] *Critique du 'De Mundo'*, VIII.2, 153.

[675] *Thucydides*, viii.

[676] All quotations are from *Thucydides*, vii-ix.

[677] *Thucydides*, xx.

use of that age', he wrote 'to instruct the ages to come'.[678] Later in the essay Hobbes defends Thucydides against Herodotus, and depicts the former as a modest historian who does not go beyond what he has himself been able to confirm. 'Herodotus', Hobbes writes, 'undertook to write of those things, of which it was impossible for him to know the truth; and which delight more the ear with fabulous narrations, than satisfy the mind with truth: but Thucydides writeth one war; which, how it was carried from the beginning to the end, he was able certainly to inform himself'.[679] Hobbes is dramatically surprised why some have considered this kind of history less significant, for the Peloponnesian war 'was a great war and worthy to be known; and not be concealed from posterity, for the calamities that then fell upon the Greacians' are a lesson to all mankind.[680]

The second virtue of Thucydides, which Hobbes now calls the '*disposition or method*' is the way in which Thucydides arranges the course of events. Depicted events are preceded by tools for readers to understand the 'grounds and motives of every action'[681] and followed by the judgement of the author. His detailed style, which was, if we believe Hobbes, acknowledged by many ancient authors, is characterised by perspicuity or by grave and august language. Cicero puts it as follows: 'he is so full of matter, that the number of his sentences doth almost reach the number of his words; and in his words he is so apt and so close, that it is hard to say whether his words do more illustrate his sentence, or his sentences his words'.[682]

Though the introductory essay to the translation of Thucydides is mainly about his excellence as a historian, it includes an interesting and significant sub-theme: the critique of a certain kind of history. Hobbes chooses Dionysius Halicarnassus as his target.[683] Hobbes uses rather familiar words when describing this type of history: 'I think there was never written so much absurdity in so few lines'.[684] Hobbes is clearly indignant at Halicarnassus's way of promoting history as entertainment, which consists of the following 'virtues of a historiographer' such as 'affection to his country; study to please the hearer; to write more than his argument leads him to; and to conceal all actions that were not to the honour of his country'.[685] Aside from these '[m]ost manifest vices',

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[678] *Thucydides*, xxi.

[679] *Thucydides*, xxiv.

[680] *Thucydides*, xxiv.

[681] *Thucydides*, xxi.

[682] Cited in *Thucydides*, xxiii. The reference is to *De Oratore* II.xiii.56, 239.

[683] This is, of course, not random. Dionysius was, as Hobbes's discussion highlights, a critic of Thucydides.

[684] *Thucydides*, xxvi. Compare this to his judgement of Aristotle's politics in *Leviathan* XLVI, 370.

[685] *Thucydides*, xxvi.

Halicarnassus was 'a rhetorician'.[686] In brief, Halicarnassus represents all the possible vices of a historiographer and his critique of Thucydides is not a valid one.

Hobbes's tune changes, in many ways, when we turn to ecclesiastical history. This seems to be an insignificant part of human learning, for what could be further from science than the history of theological matters; history is merely a matter of prudence and theology a specious science which studies things that are beyond human comprehension and philosophy. But to make this conclusion is to ignore, among other things, Hobbes's practice, which shows that it is here where his critical philosophical attitude is at work. A careful and sober conceptual analysis of the Scripture and a critical knowledge of the history of Christianity are perfect tools to 'detect all your [that is, the clergy] cheates from Aaron to yourselves'.[687]

Biblical criticism plays a significant part in *Leviathan* and especially the 1668 Latin edition of the work to which is added two extrachapters, one on the Nicene Creed and one on heresy. The critical humanist ethos is also demonstrated in a separate short piece entitled *An Historical Narration Concerning Heresy, And the Punishment thereof*, which is a careful philological and historical study of the conception of heresy.[688] Strictly taken, these works are not ecclesiastical history for they concentrate on the analysis of a doctrine or a concept, but there are many similarities between them and Hobbes's single work on sacred history, *Historia Ecclesiastica*.

The first thing in *Historia Ecclesiastica* that may strike a reader is that it is written in verse. If we believe the editor of the 1722 English translation of the work, this was not however uncommon.[689] In the preface of the translation it reads:

> *Our Author chose to cloath his Sentiments in Verse, because the Oracles of* Apollo *were utter'd in Heroicks; and* Pythagoras, *that great Master of Wisdom would suffer none of his Precepts to Appear, without the Sanction of the Muses.*
> *Ovid wrote his Books in a flowing Stile, and other have compos'd their Histories in a Vein much swelling and exalted ; but why may it not be proper (having* Horace *for a Guide Guide) to proceed in a Familiar way? And with the same Success, expose heinous Crimes, in a jocose manner.*[690]

Aside from being in prestigious company, Hobbes, according to the editor, has mainly pedagogical reasons for choosing this genre doing it '*only for the Help of Memory*'.[691] If

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[686] *Ibid.*

[687] This is Hobbes's comment to a priest that came to his sickbed in Paris at the end of the 1640s . See *Brief Lives* (Clarke), 357-358.

[688] The work was composed at sometimes in the 1660s or 1670s and published in 1680.

[689] Lessay (2000, 148) correctly considers the 1722 translation unreliable, but I have decided to use the translation for it is in line with Hobbes's mental world. The translation would deserve a study of its own.

[690] 'PREFACE by the EDITOR' (in Hobbes 1722, 1-2). Preface does not have pagination, so the pagination refers to the pages from the beginning of the preface.

[691] 'PREFACE by the EDITOR', 2.

we believe the editor, education is the main concern of the whole piece. Hobbes's aim is to tell '*how greedily do these spiritual* Oedipus's *every where delight to pursue their sacred Riddles, sweating in a new field of Mysteries, and, being blinded with an unwonted Light*'.[692]

Though this ethos bears a resemblance to the natural history of religion expounded in Chapter XII of *Leviathan*, Hobbes's history starts with some remarks on the relationship between church and the state, which, however, quickly give way to the discussion of pre-Christian religions, substantial space being dedicated to the ancient custom of worshipping the moon, Phoebus.[693] Hobbes's analysis here appears to touch on pagan religions, the theme is a familiar one and culminates in the following judgement:

> The *Greeks* [before they 'invented philosophy'] were Jugglers, noted far and wide,
> Whou sought to cozen all the World beside ;
> These grand Impostors would no Prophets chuse
> But train'd, and moulded to their proper Use :
> Old Logick-choppers, in each corner lay,
> Who bawl'd for Pence, and led the Mob astray
> Their public Calling, did to Discord tend,
> And Wrong and Right, promiscuously to bend.[694]

Historia Ecclesiastica is not only peculiar in its form, but also in style. The latter is described by Primus, Hobbes's alter ego, as follows: 'Your chiefest Pleasure lies the Point to strain, And shew your Sharpness in Satirick Vein'.[695] This is manifest, for instance, in the discussion of indulgence:

> The fourth, all Crimes will, for your Alms relieve;
> But ceases purging, when cease to give ;
> There, by the Silver Streams, that daily flow,
> Black Charcoal Sins are wash'd as white as Snow:
> [...]
> Each weary Soul, with Superstition blind,
> Left both his Money, and his Sins behind ;[696]

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[692] 'PREFACE by the EDITOR', 5-6.

[693] Of the overall structure of the work, see Lessay 2000, 149.

[694] *A True Ecclesiastical History*, 23 (358). When evaluated appropriate, I have indicated in brackets the corresponding place in the original Latin text as it appears in *OL*, V, but since the 1722 translation is rather free, the references are not always one-to-one. Names, for instance, may not appear.

[695] *A True Ecclesiastical History*, 33.

[696] *A True Ecclesiastical History*, 166 and 182.

The contents, too, are somewhat unorthodox, for Hobbes does speak at length on the fate of Socrates and the development of philosophy. This is not random for a central theme in *Historia Ecclesiastica* (and the one that connects it to *Leviathan* and the just mentioned shorter studies of aspects of Christianity) is Hobbes's critique of the philosophical abuse of religion. In *Historia Ecclesiastica* this is phrased as follows:

> The highest Honours always were conferr'd
> On those, whom Logick, not Religion rear'd;
> Their grand Ambition, and their darling Pride,
> Was, that the Learn'd might o'er the Flock preside ;[697]

However, the clergy who deliberately seek to use philosophy to justify its unjust rule were not only immoral, but often stupid and vain; 'Their Brains are empty, but their Beards profound'.[698]

When turning to the history of early Christianity, this is to Hobbes pretty much the history of the development of sectarianism and of the gradual forgetting of the teachings of Christ. The Word was perverted by vain speculations of synods, people were led astray, and the justified power of earthly rulers was taken away from them. This situation can lead to only one result: 'But now the Pope his End compleatly gains, And leads the People, and their Prince, in Chains'.[699]

In its cruelty, plotting, and degradation of the teachings of Christ, the church overcomes the great satanic beasts the Leviathan and the Behemoth:

> Such monsters *Africk* never could produce,
> None such could flow from *Circe*'s pois'nous Juice ;
> So strangely haggard seem'd her antique Face,
> Her very Footsteps you could hardly trace :
> Under a Mask their Priests the Lands deceive,
> They scatter Treasons, which the Rout receive ;[700]

All this, predictably, changes when we come to the Reformation. Hobbes summarises the core idea of the Reformation: 'Since ev'ry Subject has a thinking Soul, Which less, than Papal Pow'r, can ne'er controul' and asks 'But now, since Miracles are plainly ceas'd, How stands the Credit of the lying Priest?'.[701] Also important is the change from Latin to the vernacular:

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[697] *A True Ecclesiastical History*, 63 (370).

[698] *A True Ecclesiastical History*, 63 (370).

[699] *A True Ecclesiastical History*, 97 (381).

[700] *A True Ecclesiastical History*, 102 (382-383). On Leviathan and Behemoth, see page 98 (381).

[701] *A True Ecclesiastical History*, 102 (383) and 105 (383-384).

For, by this Time, the *Latin* Language ceas'd,
Which for some Ages had this Clime possess'd,
And many barb'rous Pedantries conduce,
To patch the Language, now in vulgar Use :
So the same People, who were blind before,
By Popish Mists, that Spread their Sense o'er,
Stand now amaz'd at such a shocking Theme ;
For all the Pray'rs in use were *Arabick* to them :
The Priests alone the Scriptures understand,
Who read the ancient Language of the Land,
But the deaf Audience know but How, and When,
With hollow Tone, to tout a long *A M E N* ;[702]

Hobbes's affinity with the Reformation though culminates to the following lines:

But LUTHER once from *German* Coasts will come,
To blast the Honours, and the Pomp of Rome ;
He'll set their pious Fraud to publick Show,
And, with his *Saxon* Thunder, strike them low.[703]

Historia Ecclesiastica combines two features that I take to be central in Hobbes's philosophical thinking: a critical stance and a candid way of expressing one's ideas. Compared to natural and civil history, sacred history plays a different role in Hobbes's philosophy. Whereas the first two serve certain instrumental pedagogic functions, e.g., provide examples and illustrations, sacred history can be considered a part of Hobbes's linguistically oriented critical philosophy. As such, history differs quite significantly from the other principal art Hobbes discusses of, poetry.

HOBBES'S THEORY OF POETRY

The original forms of poetry were sacred style, the style of oracles, judicial style, and the style of public speeches. The verse was adopted because of certain mnemonic advantages it had and because it pleased the audience.[704] Hobbes's classification of different genres of literature is based on a model taken from philosophy. 'As philosophers', he writes, 'have divided the universe, their subject, into three regions, *celestial*, *aerial*, and *terrestial*; so the poets [...] have lodged themselves in the three regions of mankind, *court*, *city* and *country*'. This produces three kinds of poetry: '*heroic*, *scommatic*, and *pastoral*', which are again divided according to the way things are represented: in a

[702] *A True Ecclesiastical History*, 125 (390).

[703] *A True Ecclesiastical History*, 130-131 (392).

[704] *The Answer to Davenant*, 445.

narrative or in a dramatic manner.[705] By these two distinctions, Hobbes is then able to give an extensive list of six different genres:

> For the heroic poem narrative, such as yours [that is, Davenant's *Gondibert*], is called an *epic* poem; the heroic poem dramatic, is *tragedy*. The scommatic narrative is *satire*; dramatic is *comedy*. The pastoral narrative, is called simply *pastoral*, anciently *bucolic*; the same dramatic, *pastoral comedy*.[706]

What is worth further investigation is what Hobbes excludes from poetry. He says that not all that 'writ in verse' is poetry. Examples of this kind of writing include 'sonnets, epigrams, eclogues, and the like pieces, which are but essays'.[707] Equally, the writings of natural philosophy, moral precepts, or histories, though may be composed in verse form are not poetry. Hobbes's explanation why this is so gives a central criterion for poetry. The mentioned forms of writing are not poetry, because their subject is not the same as in poetry. Whereas natural philosophy studies the consequences of accidents from natural bodies and histories are registers of facts, the subject matter of poetry, is ' the manners of men, not natural causes; and manners feigned, as the name of poetry imports, not found in men'.[708] Poetry then describes man in his artificial setting.

A similar rigidity in the requirements of good poetry follows Hobbes's discussion. He emphasises the use of the correct form (that is, the hexameter)[709] and in general, it can be concluded that the technical nature of poetry is central in his reflections on the subject.[710] Good poetry follows certain rules and is a matter of hard work. Another sign of this is the strict division of what is possible in different genres: 'The delight of an *epic* poem consisteth not in mirth, but admiration. Mirth and laughter are proper to *comedy* and *satire*'.[711] The next topic is the exact nature of these rules.

In general, Hobbes understood style to be a question of taste and delicacy. Style and along with it poetic imagination represent a creative aspect of literary expression, while judgement is the rational, logical aspect of the same. This view can be found, in more detailed form, in both Hobbes's writings on poetry. In *The Answer to Davenant* Hobbes writes:

> That which giveth a poem the true and natural colour, consisteth in two things; which are, to *know well*, that is, to have images of nature in the memory distinct and clear; and to *know much*.

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[705] *The Answer to Davenant*, 443-444.

[706] *The Answer to Davenant*, 444.

[707] *Ibid.*

[708] *The Answer to Davenant*, 445. Spingarn (1957, xxxii) suggests that this'Horatian rather than Aristotelian' conception of the subject-matter of poetry.

[709] *The Answer to Davenant*, 446.

[710] For Hobbes's comments on rhyming, see *The Virtues of an Heroic Poem*, iv-v.

[711] *The Answer to Davenant*, 454.

> A sign of the first is perspicuity, propriety, and decency; which delight all sorts of men, either by instructing the ignorant, or soothing the learned in their knowledge. A sign of the latter is novelty of expression, and pleaseth by excitation of the mind; for novelty causeth admiration, and admiration curiosity, which is a delightful appetite of knowledge.[712]

Accordingly, *The Virtues of an Heroic Poem* characterises a good heroic poem as being based on discretion, which may become manifest in various ways, such as the choice of words and the justice and impartiality of the poet.[713] What exactly this knowing well and knowing much is, and how a poet is able to 'please for the Extravagancy [… but] not to displease by Indiscretion'[714] his or her audience, will be the next subject, but before that Aristole's *De Rhetorica*, a source of Hobbes's ideas of style, needs to be shortly discussed.[715]

A major obstacle to further analysis appears to be the scarcity of Hobbes's translation of *De Rhetorica*. For example, whereas Aristotle's text reads: 'We may describe friendly feeling towards anyone as wishing for him what you believe to be good things, not for your own sake but for his, and being inclined, so far as you can, to bring these things about', in Hobbes's hands this changes to the following phrase 'To *Love* is to will well to another, for that others, not for ones owne sake'.[716] The fact that Hobbes does not translate the whole text but only summarises the art of rhetoric may partly be for pedagogical reasons: the treatise was translated, at least to some extent, to be used in his private teaching.[717] Secondly, brevity could be understood as an advantage when interpreting the text; and Hobbes must have considered the translated passages the most relevant ones.[718] Therefore the brevity of the translation of *De Rhetorica* is not necessarily an obstacle, though, it needs to be admitted that this conclusion rests on the *bona fide* assumption that the passages that appear in the translation are really the most significant from Hobbes's perspective. In addition to this, the translation of *De Rhetorica* finds another explanation.

The notion of art (*technê*) on which the translation of *De Rhetorica* is based comes from the Stoics, who understood art as a set of rules that help to attain a certain end necessary in life. Though the conception differs from the classical notions originally formulated by Plato and Aristotle, if we believe Gilbert, it began to prevail in late

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[712] *The Answer to Davenant*, 453.

[713] *The Virtues of an Heroic Poem*, iii-iv.

[714] *Leviathan* VIII, 33.

[715] On this see Strauss 1952, Chapter III and especially Harwood 1986.

[716] *De Rhetorica* 1380b36-1381a1 and *Rhetorique*, 72.

[717] Cf. Harwood 1986, x and 1.-3

[718] Or at least, as Harwood (1986, 2) points out, this is what the subtitle of the first edition (1637) suggests. The subtitle reads: 'containing in substance all that ARISTOTLE hath written in his Three Bookes of that subject [rhetoric], Except onely, what is not applicable to the English tongue'. See also Harwood's (1986, 13-23) analysis of Hobbes's translation as an interpretation of Aristotle.

Renaissance thought, where introductory presentations of various arts, say that of grammar and that of oratory, were often referred to as the 'brief way'. In the light of this, Hobbes's translation of Aristotle's *De Rhetorica* is a continuation of the late Renaissance handbook tradition.[719] 'Briefe' in the title of the translation is meant to be taken quite literally as referring to the most important parts of the art of rhetoric offered to a novice in the art so that he or she is able to learn the art effectively.

The contents of the 'brief way' are however important, especially Chapter II of Book III of *De Rhetorica*, entitled: '*Of the choise of* Words *and Epithets*'.[720] Hobbes's text mentions two cardinal virtues of a word: perspicuity and decency.[721] By this he means that the words used to describe a thing are 'neither *above*, nor *below* the thing signified'. To do this, the writer should use words in a natural but novel manner. This excludes for example, the use of foreign and self-styled words. Here the terminology is somewhat unclear, for Hobbes on the one hand opposes poets with '*Sophisters*' and then speaks of orators, who, if using '*Proper* words, and *Received*, and *good Metaphors*, shall both make his *Oration beautifull*, and not seeme to intend it; and shall speake *perspicuosly*'. I take this to refer to the writing in general, that is, in all kinds of writing the use of metaphors is allowed '[f]or in a *Metaphor* alone there is *perspicuity*, *Novity*, and *Sweetnesse*'. The use should, however, follow three rules: first, a metaphor needs to change the original meaning, say, making a crime an error; second, a metaphor needs to be clear, not 'far-fetched'; thirdly, a metaphor 'ought to be drawn from the noblest things', for instance, it is more appropriate to use '*Rosy-finger'd*' than '*Red-finger'd Aurora*'.[722]

The impact of the translation of *De Rhetorica* remains ambiguous. On one hand, as we shall see, Hobbes seems to adopt some of the ideas of Aristotle, but on the other hand, it would be absurd to take the translation as a definitive statement of Hobbes's ideas of style. In what follows, some aspects of this question will be introduced, but the major aim is to give a more comprehensive view of Hobbes's theory of style.

Hobbes summarises his idea of style in the following way: 'virtues required in an heroic poem, and indeed all writings published, are comprehended all in this one word—

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[719] My argument here is based on Gilbert 1960 (see especially 11-13 and 65-66). Though the same line of thought applies to the two works in volume four of *EW*, *The Art of Rhetoric* and *Art of Sophistry* are not the works of Hobbes but were wrongly attributed to him in the 1681 publication of *Rhetorique*. The works are a reprint of Dudley Fenner's English adaptation of Omer Talon's *Rhetorica* of 1584. See Ong 1951.

[720] *Rhetorique*, 108-110 (the quotations, if not stated otherwise, are from this chapter). For the original see *De Rhetorica* 1404b1-1405b33.

[721] Harwood (1986, 6) takes the first quality to be the most important and refers to Hobbes's use of it in *Leviathan* V, 22.

[722] The metaphor was widely held already in Antiquity. It refers to dusk as the work of Aurora, the goddess of dawn, scattering rose petals. Aristotle's original text mentions the third possibility: 'crimson-fingered' (*De Rhetorica* 1405b20-21).

discretion.'[723] Discretion refers to an appropriate balance between fancy and judgement and the corresponding literal expression. This balance depends on many factors, such as which kind of art is in question, or what kind of social situation is one in, but generally it is about knowing well and knowing much. Of these the latter is more central.

By knowing well, Hobbes means that expression in poetry must be right, but what this exactly means depends on various things, for example, what kind of poetry is in question. Hobbes however starts his discussion from the Aristotelian tenet of avoiding foreign words. In *The Answer to Davenant*, he complains that there are 'so many words in use at this day in the English tongue that, though of magnific sound, yet like the windy blisters of troubled waters, have no sense at all, and so many others that lose their meaning by being ill coupled; that it is a hard matter to avoid them.'[724] Hobbes's complaining can not be taken simply as the talk of a conservative linguistic purist, because Hobbes defends, again in the footsteps of Aristotle, elaborate vernacular language. The complaint can be taken as a statement on behalf of language that is simple, clear, and plain, but at the same time innovative and rich in expression.

We also need to consider Hobbes's own descriptions. What justifies his own rather colourful language? He describes, for instance, contemporary language as 'palpable darkness'.[725] One answer could go as follows. The idea here is more familiar from his critique of philosophical language. Just as scholastic philosophy has produced such absurdities as the 'eternal now' or 'incorporeal substance', bad poetry produces cock-eyed, clumsy verses. It is worth noting that Hobbes uses similar language when describing bad poets. Their literary imagery consists of 'expressions [which] are indeed no better than riddles and not only to the reader, but also after a little time to the writer himself, dark and troublesome'.[726] Bad philosophers and unskilful poets are just two names for the same thing, deceptive and inept use of language.[727]

Aside from this general lack of verbal dexterity, Hobbes mentions the vices of expressing 'more than is perfectly conceived; or perfect conception in fewer words than it requires'. To avoid these, a poet must have a clear view of the relationship between persons and subjects in a poem. Again, there are many traps, which Hobbes characterises

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[723] *The Virtues of an Heroic Poem*, iii.

[724] *The Answer to Davenant*, 453.

[725] *The Answer to Davenant*, 453.

[726] *The Answer to Davenant*, 454.

[727] Howell (1956, 384-385) sees Hobbes as a part of a more general movement in Early Modern England, which aimed towards a clear and simple *ars rhetorica*. As the culmination of this development, he mentions Joseph Glanvill's textbook (s) on preaching published for the first time in 1678. In Glanvill's (1703, 12 and 19) own words: 'Plainness is a Character of great latitude and stands in opposition, First to *hard words*. Secondly, to *deep* and *mysterious notions*. Thirdly, [t]o *affected Rhetorications*, and Fourthly, to *Phantastical Phrases*' and preachers 'should not trouble [their] Pulpits with Hypotheses of Philosophy of the heights of speculative Theology'. Spingarn (1957, xxxviii-xl) also discusses this movement against metaphysical conceits.

as ‘indecencies’, of which the gravest are those which ‘show disproportion either between the persons and their actions, or between the manners of the poet and the poem’[728]. An example of the first is ‘uncomeliness of representing’ some vices, like cruelty or drunkenness in great persons, and, of the second, the use of inappropriate dialect and the use of ‘metaphors and comparisons as cannot come into men’s thoughts’. Against this, Hobbes’s gives his analysis of knowing much, or ‘novelty of expression’, which causes ‘a delightful appetite of knowledge’.[729] The analysis, found in *The Virtues of an Heroic Poem,* not only lists some of the poetic virtues, but also gives concrete examples of classical authors.

The essay opens with a discussion of discretion. Discretion refers to harmony, which however now means delicate composition in writing, and, aims toward a certain end, which is profit and delight. Of profit Hobbes mentions that ‘[b]y profit, I intend not here any accession of wealth, either to the poet or to the reader; but accession of prudence, justice, and fortitude’.[730] This articulates the moral aspect connected with Hobbes’s conception of style. Literal works, which are not philosophy, aim to elevate the mind of a reader and by this to give him or her a sublime illustration of what moral life is. In such a way literal works exemplify the two aspects of virtue already present in the notions of wit and art, namely skilfulness and education.

Of great interest is the analysis of how literal harmony is created. There are, Hobbes continues, seven virtues by which harmony is achieved: by ‘the choice of words’, ‘the construction’, ‘the justice and impartiality of the poet’, ‘the contrivance of the story or fiction’, ‘the elevation of fancy’, ‘the clearness of descriptions’, and, ‘the amplitude of the subject’.[731] In general, Hobbes strategy here resembles the one he uses in Chapter V of *Leviathan* when speaking of the causes of absurdity. As in philosophical discourse, so too in poetical discourse an author should avoid category mistakes in order to create harmonious texts. If, for example, a poem chooses to describe love by speaking of pots and pans, this is probably an attempt which is doomed to fail and a sign of indiscretion.

The first virtue concerns the right choice of words. This does not refer only to the avoidance of too complicated expressions or words not know for a reader, but also to the idea that words should correspond with character. Hobbes’s own example is telling: ‘Nor does Homer in any part of his poem attribute any praise to Achilles, or any blame to Alexander, for that they had both learnt to play upon the guitar.’[732]

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[728] Hobbes clarifies this by writing that ‘the disproportion is between the poet and the persons of his poem’, for example the disproportion between ‘the dialect of the inferior sort of people, which is always different from the language of the court.’ (*The Answer to Davenant*, 455*)*

[729] All quotations are from *The Answer to Davenant*, 453-455.

[730] *The Virtues of an Heroic Poem*, iii.

[731] *The Virtues of an Heroic Poem*, iv.

[732] *The Virtues of an Heroic Poem*, iv.

The second virtue, 'the perspicuity and the facility of construction', is what Hobbes calls, in the technical sense of the word, 'good style'.[733] This virtue has to do with the overall composition of the work as well as its parts and details. An author should set down the words of a piece so that they follow 'a natural contexture of the words';[734] so that a reader does not have go back and forth in the text. This also is a question of rhythm. Hobbes mentions that 'the laws of verse [that is, classical verse ...] put great constraint upon the natural course of language', but immediately adds that it is the skill of a poet to find words that fulfil these classical rhythmic standards.[735] This can be exemplified by two basic rhetorical figures, *asyndeton* and *polysyndeton*. A simple example is the saying of Caesar, '*veni, vidi, vici*', which follows the figure of *asyndeton*, but as a *polysyndeton* it reads: '*veni et vidi et vici*'. Compared to the punchy original, the dragging tempo of the latter is an evident sign of clumsiness.

The mastery of the first and the second virtue depends in some degree on the language used, but instead of raising Homer or Virgil or Lucan above the other two, Hobbes outlines some general principles that guide these virtues. Latin is perhaps 'apter [than Greek] to dispose itself into an hexameter verse, as having both fewer monosyllables and fewer polysyllables'.[736] This linguistic factor gives Latin a certain majesty and an impression of gravity. Rhythm is not of much use, however, if the words are incorrect, and therefore both the author and the translator are advised to avoid 'unknown words' and to deviate from strict rules only when necessary. Literal translation, Hobbes adds, has a tendency to fail.[737]

The third virtue, contrivance, is a kind of poetic liberty to break the linearity of events. In history, it is mandatory to follow the course of events, but this is not a requirement of poetry, where an author should present events in an order that is best for the narrative. Here Hobbes – though it is a little bit difficult to see why – firmly places Homer on the highest throne. Not only did he bring together 'the whole learning of his time (which the Greeks call *cyclopædia*)', but 'furnished both the Greek and Latin stages with all the plots and arguments of their tragedies'.[738] Perhaps the idea is that Homer is the master of this virtue because he melded into his works all the basic narratives and gave them a form that has been copied ever since.

The fourth virtue, the elevation of fancy, is perhaps the most relevant. By this Hobbes means the capacity of a poet to affect readers, to show his or her 'poetical

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[733] *The Virtues of an Heroic Poem*, iv. Cf. *De Rhetorica* 1408b21-1409a23.

[734] *The Virtues of an Heroic Poem*, iv.

[735] *The Virtues of an Heroic Poem*, v.

[736] *The Virtues of an Heroic Poem*, vii.

[737] *The Virtues of an Heroic Poem*, vii.

[738] *The Virtues of an Heroic Poem*, vii.

fury'.[739] This should not lead to rage, although Hobbes is not actually clear why this should be so. He mentions that 'men more generally affect and admire fancy than they do either judgement, or reason, or memory, or any other intellectual virtue'.[740] This is so because men are hedonistic even in their more cultivated desires. A story of a great hero killing men and beasts and saving princesses pleases a great majority than a story of a modest clerk who helps a beggar-wife. Poetry, then, seems to be somewhat more developed entertainment and should remain so. This is not, however, the full story, for Hobbes keeps repeating his idea that literal works should have a genuine pedagogic function. Therefore, the descriptive language should not be excessive. It is indicative that in the essay, when Hobbes gives the examples of mastery of every particular virtue among the classical writers he has chosen, he mentions Lucan rather Homer as a master of this virtue and adds that 'though it [the elevation of fancy] be a mark of great wit, yet it is fitter for a rhetorician than a poet'[741] The concrete example Hobbes gives from Lucan is line 118 from *Pharsalia*:

> Victrix cause Diis placuit, sed victa Catoni

Which is translated:

> The side that won the Gods approved most,
> But Cato better lik'd the side that lost.[742]

This absolute line between man and gods is according to Hobbes pure at least in aesthetic terms. This is so because the verse so clearly represents the difference between gods and man. There is however, a further aspect of Lucan's genius. Hobbes seems to prefer Lucan to the other two ancient masters because Lucan is on man's side: 'Homer indeed maketh some Gods for the Greeks, and some for the Trojans', kept Jupiter impartial, and 'never prefers the judgement of a man before that of Jupiter, much less before the judgement of all the Gods together'.[743]

The fifth virtue of a poet is justice and impartiality, '[f]or both the poet and the historian writeth only, or should so do, matter of fact.'[744] If a subject of a poem lived a disgraceful life, a poet may tell the truth, but he should keep only to the description, not take the role of 'an absolute master of any man's good name'. Hobbes concludes that 'it

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[739] *The Virtues of an Heroic Poem*, v.

[740] *The Virtues of an Heroic Poem*, v.

[741] *The Virtues of an Heroic Poem*, vii.

[742] *The Virtues of an Heroic Poem*, viii.

[743] *The Virtues of an Heroic Poem*, viii.

[744] *The Virtues of an Heroic Poem*, vi.

is a very great fault in a poet to speak evil of any man in their writings of historical'.[745] Here, Lucan, the master of the fourth virtue, is the lowest of the three. Lucan, 'openly in the Pompeian faction' and 'inveighing against Caesar throughout his poem' is just like Cicero and therefore 'justly reckoned by Quintilian as a rhetorician rather than a poet.'[746] The judgement should be read more as the requirement of impartiality than, say, evidence of Hobbes's possible royalist tendencies.

A salient point is that Lucan, who was the master of contrast and thereby of the elevation of fancy, is not a proper poet, because, contrary to 'Homer and Virgil, especially Homer, do everywhere what they can to preserve the reputation of their heroes'.[747] Lucan tries to sell the reader his point of view, which, we must conclude, is against Hobbes's view of the task of a poet. This requirement of impartiality is of some relevance in the further discussions of the relationships between poetry, civil philosophy, and education.

The sixth virtue should be seen in relation to the fourth. If the elevation of fancy was mainly about the overall smoothness of the text, 'the perfection and curiosity of descriptions' is about choosing the right individual words. Hobbes refers to the ancient way of speaking of these as icons (that is, images), which are always 'a part, or rather a ground for the poetical comparison'.[748] In general, the rule here is that a poet 'should paint actions to the understanding with the most decent words, as painters do persons and bodies with the choicest colours, to the eye'.[749] In practice, this means economical, even ascetic expression, which captures something with just a few words. Hobbes's example is the line 'So fell Troy' from Virgil. To this is combined a description where men together cut a tree and the kinds of things that are related to this. The description is the image, but the concluding line, 'So fell Troy', condenses all this. When it comes to the specific question, who among the three is the greatest, Hobbes's answer is again equivocal. He says that Virgil did not have many original ideas, but borrowed much from Homer, but then goes on to explain that it is not only the image used (the falling of a great tree), but to what effect it is used. Homer used the image to illustrate the fall of a particular, albeit great man, whereas Virgil used it to illustrate the fall of a kingdom, and it is impossible to compare them.[750]

The last virtue is about making the text lively and interesting to read. This requirement of variety distinguishes a poem from an epigram. If in an epigram, one good verse is enough, in a poem, all the verses should not only be compatible with the others,

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[745] *The Virtues of an Heroic Poem*, vi.

[746] *The Virtues of an Heroic Poem*, viii.

[747] *The Virtues of an Heroic Poem*, viii.

[748] *The Virtues of an Heroic Poem*, vi.

[749] *The Virtues of an Heroic Poem*, vi.

[750] *The Virtues of an Heroic Poem*, ix-x.

but be individually elegant. Here the master is Homer, and not so much because of a 'superfluity of words', but because he has 'plenty of heroic matter, and multitude of descriptions and comparisons'.[751]

When pondering the nature of simile (or, in the 17th vocabulary, similitude) both in general and in poetry Hobbes draws a distinction that is important. On the one hand he speaks of the importance of using just the right kind of a simile, and on the other hand, he warns of the fraudulent nature of metaphors.[752] In general, simile is always anchored to our natural understanding of reality, whereas a metaphor can surpass it. Hobbes's practice seems to support this colloquial account, but his theoretical distinction between the two is not clear. His translation of Aristotle's *De Rhetorica* gives a definition of both:

> A *Similitude* differs from a *Metaphor* onely by such *Particles* of *Comparison* as these; *As ; Even as ; So; Even so*, &c.
> A *Similitude* therefore is a *Metaphor dilated ;* and a *Metaphor* is a *Similitude contracted* into one Word.
> A *Similitude* does well in an Oration, so it be not too frequent; for 'tis *Poeticall.*
> An example of the *Similitude*, is this of *Pericles*, that said in his oration, *that the* Bæotians *were like so many Oaeks in a Wood, that did nothing but beate one another*.[753]

Hobbes seems to agree with these recapitulations of Aristotle. For instance, he defines metaphor as 'a comparison contracted to a word'.[754] Nevertheless, when we move to the broader terrain of similes, things become more complicated. It is not only the case that a simile is a metaphor with more words, but also that similitudes have different functions in poetic and philosophical discourse.

As already mentioned, the use of similes is not limited to poetry, but can be used elsewhere. Hobbes's use of simile is an interesting part of his discussion of imagination in Chapters II and III of *Leviathan*. Hobbes starts the discussion of imagination in a naturalistic fashion by referring to the general laws of motion. During the discussion he uses a number of similes to explain the different aspects of imagination. The first simile seeks to explain the nature of imagination. Hobbes writes:

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[751] *The Virtues of an Heroic Poem*, x.

[752] Bunce (2003, xvii), following Samuel Sorbiere, has suggested that Hobbes's use of allegories is a direct loan from Bacon.

[753] *Rhetorique*, 110-111. Aristotle's original text contains, as Harwood (editors note 13 on page111) points out, a total of ten examples.

[754] *The Virtues of an Heroic Poem*, v. Watson (1955, 559) suggests that Hobbes's conception of metaphor is a loan from Aristotle.

> And as we see in the water, though the wind cease, the waves give not over rowling for a long time after, so also happeneth in that motion, which is made in the internall parts of a man, when he Sees, Dreams, &c.[755]

This is a clear, natural comparison that is in accordance with the law of inertia. The simile that characterises the decaying character of imagination is comparable:

> The decay of Sense in men waking, is not the decay of the motion made in sense, but an obscuring of it, in such manner, as the light of the Sun obscureth the light of the Starres; which starrs do no less exercise their virtue by which they are visible, in the day, than in the night.[756]

Again the illustration is sober but at the same time full of meaning. The first thing Hobbes seeks to show here is that imagination and memories do not vanish. Like stars in the sky, they stay in the mind, though not forever, still long enough. Secondly, he directs the reader's attention to the fluctuation of phantasms, which again have a certain general regularity; just as day and night follow each other with a certain necessity, so do different phantasms. Finally, almost needless to add, the sun is a star, but because it is closer to us it shines brighter than other stars in the universe. In a similar manner, sensation is the most vehement and actual phantasm of the mind.

The third simile appears in Chapter III of *Leviathan* and describes the general coherence of our thinking from another point of view. Mental discourse, or the succession of one phantasm by another, has 'coherence of the matter moved, in such manner, as water upon a plain Table is drawn which way any one part of it is guided by the finger.'[757] This simile is both natural and rich. It is clear what Hobbes has in mind: our thinking can be guided in the same way as the finger guides water on the table.

The above examples give some idea how Hobbes sees the similes and metaphors in poetry and elsewhere, but they need to be complemented by a discussion of the general aims of poetry. Poetry aims at truthlikeness and is not in this sense as restricted as philosophy or history. There is nevertheless a clear limit to the liberty of poets and poetic language. Hobbes disagrees with those who 'think that the beauty of a poem consisteth in the exorbitancy of the fiction'.[758] Therefore, also the poetic imagination has its limits.

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[755] *Leviathan* II.4-5. Cf. *Elements* III.1, 27.

[756] *Leviathan* II, 5.

[757] *Leviathan* III, 8. Cf. *Elements* III.4, 28.

[758] *The Answer to Davenant*, 451

CONCLUSION: HARMONY AND EXPEDIENCY OF LITERARY STYLE

In *The Answer to Davenant* Hobbes writes:

> But so far forth as the fancy of man has traced the ways of true philosophy, so far it hath produced very marvellous effects to the benefit of mankind. All that is beautiful or defensible [...] is the workmanship of fancy, but guided by the precepts of true philosophy. But where these precepts fail, as they have hitherto failed in the doctrine of moral virtue, there the architect Fancy must take the philosopher's part upon herself. He, therefore, who undertakes an heroic poem, which is to exhibit a venerable and amiable image of heroic virtue, must not only be the poet, to place and connect, but also the philosopher, to furnish and square his matter; that is, to make both body and soul, colour and shadow of his poem out of his own store; which, how well you have performed I am now considering.[759]

This suggests that Hobbes held a view that poetry and philosophy, and especially moral philosophy, can sometimes coincide. My understanding of this relationship is as follows.

The two central features of poetry were imitation and naturalness. These two are summarised by Hobbes when he defines the aim of poetry to be truthlikeness. Poetry, then, imitates philosophy, which, almost needless to say, aims at truth. Philosophy should remain a 'rigorous search of Truth'[760] and should leave ornamentation aside. Consequently, a poet should have some philosopher in him in order to educate the public. This reading, it may be added, is more in line with Davenant's own preface, which discusses at great length the precise role of poetry in civil education.[761] It is not then the case that Hobbes is adopting a conception of philosophy in which philosophy was understood to bear a close resemblance to arts and in contact with philological analysis and hermeneutics. Or that a philosopher is a craftsman who gives a form to matter by his *tekhnē*.[762] Though Hobbes clearly appreciates the philological aspect of Renaissance thought, the emphasis is on the latter part (*logos*) of the word, that is, philology as a scientific study of language. This aspect of his thinking is most clearly present in his Biblical criticism, not in his ideas on political philosophy and its method.

My second critical remark deals with the educational or civilising function of poetry. Because poetry is, on the one hand, about the virtuosity of a poet and, on the

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[759] *The Answer to Davenant*, 449.

[760] *Leviathan* III, 34.

[761] See Davenant, 1971[1650 and 1651], 3-44. Note that Davenant (*op.cit.* page 13) was not in favour of a general educational project, but one for the elite (natural or acquired).

[762] On the Renaissance conception of philosophy, see Vasoli 1988, 59-65.

other, about educating the public, discretion is also a social question.[763] As such, it can be divided into two discussions: firstly this analysis is about to what extent a writer or a speaker should follow social norms and manners in order to give a genuine moral lesson, not just entertainment or 'Small morals'. But secondly, it is about limits of literary expression which discretion determines and which represent the approved moral ends of society. The discussions may look separate but in the end the aim is the same: the expression of excellent and harmonious humanity.

In *The Answer to Davenant*, Hobbes gives a rather different example of what he means by harmony. While discussing the difference between the great classical (heathen) poets and their indirect heirs, 'unskilful divines', he writes:

> in the use of the spiritual calling of divines, there is danger sometimes to be feared, from want of skill, such as is reported of unskilful conjurers, that mistaking the rites and ceremonious points of their art, call up such spirits, as they cannot at their pleasure allay again; by whom storms are raised, that overthrow buildings, and are the case of miserable wreck at sea.[764]

A magical tone to a passage is of course secondary, for the greatest danger of these poets lies in that 'instead of *truth*, they raise *discord*, instead of *wisdom*, *fraud*: instead of *reformation*, *tumult*; and *controversy*, instead of *religion*.'[765] In his work, a poet should contribute to social harmony, not promote political instability, to be in Puttenham's words 'not *phantastici* but *euphantasiote*.'[766]

The second question is a little more complicated. It seems hard to couple Hobbes's idea of certain social manners as valuable and important with his analysis of vainglory, on the one hand, and his requirement of plain and clear style, on the other. The term 'discretion' already indicates that Hobbes emphasises a certain social delicacy in his discussion of wit. As a part of politeness, discretion is used in 'conversation and business, wherein times, places, and persons are to be discerned'.[767]

There is, however, an obvious answer to the problem posed. Poetry should contribute to certain ends and give such moral examples that promote the public peace and the self-preservation of a commonwealth. It then has a similar agenda and similar restrictions as philosophy. A consequence of this seems to be censorship, because the ultimate power to decide what is suitable for the public mind is decided by the sovereign and this applies equally to both as poems and philosophical treatises.

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[763] This was, as for example Westgate (1977, 281) writes , 'conventional Renaissance Horatian doctrine'.

[764] *The Answer to Davenant*, 448.

[765] *Ibid.*

[766] Puttenham 1970, 19.

[767] *Leviathan* VIII, 33.

The adaptation of the idea of indecency is indicative as such for it alludes to the fact that poetry has a certain function. The exemplary poetry does not only aim at harmonious expression, but at educating through this, at cultivating people and making their moral and intellectual character polite and genteel. Understood like this poetry is a means to civil and moral education and therefore contributes to collective aims, or, in Hobbes's words, 'approved ends'. Hobbes is not very precise what these ends are, but it is safe to assume that poetry that aims to teach secure and commodious living and virtues according to self-preservation qualifies.

With these clarifications, it is possible to recapitulate certain ideas. In short, illustrations of philosophy should follow Hobbes's basic principle that, if we adhere to rational discourse, our imagination should be restricted to finite things, but this is meant to be interpreted more freely so that the use of common knowledge and literature is included. With these extensions, the use of comparisons in philosophy can be taken to follow Hobbes's finitism. However, the illustrations in the arts – history excluded, perhaps – resemble the use of the name 'God', which refers not to a conceivable object, but is used only to honour God's omnipotence.[768] They should not be understood as telling us something real in the sense that we are able to know that such things as these really exist. They are, however, real in the sense that we really use words that do not correspond with objects in the external world, or, more broadly, the elementary structure of reality. But this is what names are in general. They are signs of our thoughts, not things.[769]

It is misleading to conclude that poetry (understood here in the broad sense covering all kinds of literary works) and philosophy come together in Hobbes's philosophy and especially in *Leviathan*. First, the distinction between fancy and judgement is not a complementary, but separating one. As Hobbes writes, they 'may have a place in the same man, but in turnes, as the end which aimeth at requireth'.[770] A similar conclusion cannot however be made about the relationship between reason and eloquence, which Hobbes describes as follows: 'wheresoever there is place for adorning and preferring of Errour, there is much more place for adorning and preferring of Truth'.[771] And this means that in civil philosophy truth prevails, no matter how effective eloquence might be. As Oakeshot once described the issue: 'civil philosophy, whatever else it is, is philosophy'.[772] To say this is not to violate the diversity of Hobbes's argumentation, but to point out that the core idea remains: all good philosophy is based on definitions, which is followed by an analysis of what follows from this. Secondly,

[768] *Leviathan* III, 11. Cf. *On the Citizen*, XV.14, 178-179.

[769] *Concerning Body* I.I.5, 17. Cf. *Elements* V.2, 35 and *Correspondence* Letter 57.

[770] *Leviathan* 'A Review and Conclusion', 389.

[771] *Leviathan* 'A Review and Conclusion', 390.

[772] Oakeshott 1975, 26.

though the figurative use of language has a role in the argumentation of *Leviathan* and more generally in Hobbes, this is not the same kind of figurative use that we find in poetry or rhetoric. It is not a 'combining [of] the pictorial vividness of the epic with relentless precision of logic'.[773] Instead it is the use typical to many philosophers, perhaps exemplified best in Plato. As with Plato, Hobbes's philosophy was the art of thinking. Perhaps the following example helps to pinpoint the difference:

> I can allow a geographer to make in the sea, a fish or a ship, which by the scale of his map would be two or three hundred miles long, and think it done for ornament, because it is done without the precincts of his undertaking; but when he paints an elephant so, I presently apprehend it as ignorance, and a plain confession of *terra incognita*.[774]

The relevance of the preceding discussion on poetry can be rephrased as follows. Poetry aims not at truth, but truthlikeness. Rhetoric is at times even worse, for it aims, at its best, at the adornment of truth, and, at its worst, at pure persuasion. It is then mistaken to blur the line between reason and eloquence and judgement and fancy, not only because there is no clear evidence to be derived from Hobbes's text, but also because it would change the meaning of the text itself.

To sum up, Hobbes does use vivid language and opulent comparisons when illustrating his ideas, but they do not transcend in any way his general realistic way of doing philosophy. I would also argue that there is not a direct relationship between Hobbes's ideas on literature and his later civil philosophy. Hobbes's theory of literature is a relatively independent part of his thought and should be treated as such. From this conclusion, it follows that philosophy is a sober, but not dry discourse. Further aspects of this are the subject of the next chapter.

[773] Wolin 1970, 24.

[774] *The Answer to Davenant*, 452. See also Thorpe (1940, 135) on Hobbes's account of metaphors in science and Skinner (1996, 364-365) on Hobbes's understanding of *ornatus*.

VII METHOD AND ARGUMENTATION

Hobbes aimed to write with clarity and certainty (*perspicué et valide*).[775] In the light of this, two things are distracting: the nature of his own writings on method and the amount of secondary literature discussing his method. Both turn out to be more like obstacles than guides when trying to understand Hobbes's ideas of philosophical reasoning. In the chapter at hand, the much vexed question of what was Hobbes's method will be analysed.

In one of his two surviving letters to Hobbes, Leibniz wrote: 'digna TE, qvi primus illam accuratam disputandi ac demonstrandi rationem, veteribus velut per transennam inspectam, in civil scientiae clara luce posuisti.'[776] This statement has in a condensed form a number of problems related to the question of method and argumentation in Hobbes. The first, and the most general, could be phrased: by what name (method or argument) should we call Hobbes's way of doing philosophy? The second question asks whether the case is as Leibniz claims: that Hobbes's methodological genius lies in political philosophy. It is not axiomatic that political philosophy is the apex of Hobbes's philosophy. Especially in the light of the post-*Leviathan* works, a more traditional answer appears plausible, namely that mathematics, or more precisely geometry, is the key an understanding of Hobbes's way of philosophising.

There are a number of ways to approach the question of method in Hobbes. The first is studying the historical background of Hobbes's philosophy and the question here is: what are the constituents of Hobbes's idea of philosophy and, consequently, his civil philosophy. The second, the internal approach, seeks to trace the development of method in Hobbes's own work. The two are some times coupled, and what is taken to be the source or the sources of Hobbes's idea of science influences what is taken to be his idea of science.

Hobbes himself claimed to be without predecessors.[777] Why, then, should we think otherwise? Perhaps we should not, but we do. In recent scholarship on Hobbes there are three principal interpretations about the origin or background of Hobbes's

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[775] *Critique du 'De Mundo'* I.4, 107 (in *Anti-White*, 26) Jones translates *valide* as 'firmness'. The literal meanings are 'strong', 'powerful', 'valid'). Cf. *OL*, V, 154.

[776] *Correspondence* Letter 189, 731 (Malcolm's translation reads: 'you were the first person to place the correct method of argument and demonstration (which had been looked at by the Ancients as if through a lattice window) in the clear light of political philosophy.' (733)).

[777] See *Concerning Body*, 'Epistle Dedicatory', ix and *EW*, VII, 471 (this text is an excerpt from English Optical MS (Harleian 3360), also known as 'A Minute or first draught of the Optiques' composed 1646 in Paris).

scientific method. The first emphasises the role of Aristotelianism and modern science.[778] The second sees the humanistic tradition and, in particular, classical oratory as significant when trying to explain Hobbes's idea of civil philosophy.[779] Third, and perhaps the most widely accepted, emphasises the role of mathematics in Hobbes's scientific development.[780] In what follows I will concentrate on the second and the third interpretations. When it comes to the first interpretation, which was long held the standard one, my position on it is the following.

I find it plausible to think that the Aristotelian philosophy of science helps us to understand some of Hobbes terminological solutions and distinctions, for example, throughout his work he uses the Aristotleian distinction between *apodeixis tou dioti* and *apodeixis tou hoti*. I do not, however, believe that the more specific arguments are convincing. For instance, the argument concerning the influence of the Padovan method on Hobbes is shown to be superficial.[781] Instead of blindly following Galileo or Harvey, Hobbes was impressed by their concrete achievements in the sciences. The basic assumption that Hobbes was impressed by the power of geometry and its method appears, however, more correct here. This is true especially in the light of the fact that Euclidean and Aristotelian methods were largely taken as incompatible in 16th-century discussions of the scientific method.

The historical studies on origins of Hobbes's method are plausible, but only, I believe, if they are taken to reveal an aspect of the complicated network of ideas that constitute and surround Hobbes's thinking. For example, modernistic-Aristotelian interpretations tell us something, not necessarily about Hobbes's idea of science, but about the general development of scientific method just before the time of Hobbes. My historical interests here are twofold. First, I seek to offer a historical narrative of the conception of method and how it relates to the notion of art, and to Hobbes. Secondly, I wish to give some clarifying remark on Hobbes's relationship with the history of mathematics.

My initial argument goes as follows. Hobbes from the beginning of his intellectual career wrote a great deal on method, but his mature philosophy does not seem to demonstrate a rigid adoption of methodological principles. Clarity and certainty do not

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[778] This line of interpretation was emphasised by Watkins (1989[1965], Chapter III) who relies on Randall 1961. The broader historical argument, however, is based on Cassirer's (1906-7) interpretation of the relationship between Medieval and Early Modern science. See also Laird 1934, 43; MacPherson 1964, 25-6; Goldsmith 1966, 1-2; Raphael 1977, 22; and Martinich, 1997, 100. For a recent, more convincing suggestion that Hobbes's ideas of method are influenced by some 16th-century Italian Aristotelians, see Leijenhorst 2002. For critical notes, see Sorell 1988, 74; Tuck 1989, 105-6; Prins 1990; Jesseph 1999, 95-6 and 238; Malcolm 2002, 153.

[779] Above all Skinner 1996.

[780] Hobbes himself emphasised the role of geometry. See, for example, his *The Verse Life* 256, 261, and 263. Cf. the Latin original in *OL*, I, xiv and xxvi. For a rather odd view of Hobbes's mathematics as 'a purely mental construct', see Funkenstein 1986, 316.

[781] See Prins 1990.

refer to this. *Leviathan*, which is the apex of Hobbes's thinking in many ways, is versatile and rich not only in details and ideas, but also in its arguments, and I find it misleading to reduce them to a set of principles, whether found from his predecessors and contemporaries, or construed by modern commentators. From this it does not follow that the views of predecessors and contemporaries or modern scholarship are not of great importance, merely that it is doubtful whether or not it is possible to give a monolithic reading of Hobbes's method and its historical grounding.

A heuristic approach to the discussion in hand is the view offered in the beginning of *Critique du 'De Mundo'*, where Hobbes writes that: 'Philosophia, id est scientia omnis'.[782] Jones in his English translation gives three possible interpretations of this: 'philosophy, i.e. every science', 'philosophy includes all other disciplines', or 'every study must be treated philosophically whether or not it is a part of philosophy'.[783] Of these, the last is closest to Hobbes's original meaning, which leaves the familiar conception of philosophy as a general inquiry related to the foundations of every science and which is also in line with the general theme of the opening of the *Critique du 'De Mundo'* where Hobbes argues that the essence of philosophy is a logical and conceptual clarification of basic concepts like body and motion. This formulation forms the core of the discussion below.

A HISTORICAL BACKGROUND

Any reflection on Hobbes's idea of science benefits from taking into account the fact that though he started relatively late, Hobbes stayed in philosophy for over fifty years and wrote on various subjects with different styles making an *oeuvre* of approximately 40 works, including treatises on metaphysics, psychology, optics, politics, poetry as well as translations and commentaries. It should not, then, be surprising if Hobbes's idea of science is not easy – if indeed possible – to summarise.

As the discussions concerning Hobbes's method are sometimes related to how his intellectual development is seen, a short look at this development is appropriate.[784] Hobbes received a basic humanist education in a school in Westport. After this he studied at Oxford and went through the curriculum that was shaped by humanism and Aristotelianism. In 1608 he started his career as a tutor and secretary for the Cavendish family. Hobbes entered the world of science, and in some extent also of politics, in 1627 when he published his first academic work, a translation of Thucydides's *History of the*

[782] *Critique du 'De Mundo'* I.3, 107. As the editors point out there is a parallel view in *Leviathan* XLVI, 367.

[783] *Anti-White*, 26.

[784] For example Strauss (1952) and Skinner (1996). The story that has been told many times and in many ways, need not be repeated here in detail. Useful biographies of Hobbes include Tuck 1989; and Martinich 1999; Malcolm, 2002, Chapter 1; and Skinner 2002, Vol. III, Chapter 1.

Peloponnesian Wars.[785] Depending on one's interpretation he maintained a humanistic position from 1620 to the beginning of the 1630's, or from the publication of Thucydides to the composition of *Elements of Law.*[786] After *Elements* and during his early years in exile in France, Hobbes is considered to have adopted a more scientific approach to philosophical problems. After this 'rupture' Hobbes returned to a more humanistic style of philosophy, but one that perhaps does not have direct predecessors in the tradition.[787] The product of this pondering of civil philosophy and its nature is *Leviathan*. The rest of Hobbes's career is taken to be overshadowed, in practice and in theory, by this work.

In general, I share the sketch presented, but interpret it a little differently. *Leviathan* (that is the English version of 1651) is a turning point in Hobbes's work in many respects, but we need to be more optimistic. That is to say, in *Leviathan* Hobbes becomes aware of and starts to develop a new theory of philosophical knowledge, which receives a further clarification in the post-*Leviathan* works. My disagreement with the standard reading then is that Hobbes's works from the 1650s onwards are significant. The other point where my reading is different from the humanist and modernistic-Aristotelian readings is the way in which the historical background of Hobbes is approached; the development of mathematics is of primary importance here.

A reader of Hobbes cannot avoid the impression that geometry is the highest science.[788] This impression is roughly correct and in what follows I seek to establish it. It has become a piece of common faith that Euclid is the figure through which we are able to shed light on Hobbes's idea(l) of science.[789] However, if we look at mathematical

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[785] This is a rather tentative proposal. Naturally Hobbes was involved in politics as a servant of the Cavendish household and had some other activities, like those in the Virginia company. See Malcolm 2002, Chapters 1 and 3.

[786] The dating is based on the following presuppositions. The first dating (1620 to 1630s) arises from the idea of some scholars who think that a collection of essays published anonymously in 1620 and titled *Horae Subsecivae* contain three essays by Hobbes (1997). The authorship is however doubtful. See Malcolm 2002, 7 and 78-9. The latter end of this periodisation refers to the time when Hobbes's interest in science is convincingly documented to have started. The second dating (1627-1640) is based on Skinner (1996, Chapter 6) according to whom *Elements* completed Hobbes's series of humanist works that included a work in poetry (*De Mirabilibus Pecci*), history (the translation of Thucydides), rhetoric (the translation of the parts of Aristotle's *De Rhetorica*) and civil philosophy (*Elements*).

[787] Skinner 2002, Vol. III, 65.

[788] This is not unequivocally true, for in *Leviathan* (XXX, 184) Hobbes writes: 'Good Counsell comes not by Lot, nor by Inheritance; and therefore there is no more reason to expect good Advice from the rich, or noble, in matter of State, than in delineating the dimensions of a fortresse; unlesse we shall think there needs no method in the study of Politiques, (as there does in the study of Geometry,) but onely to be lookers on; which is not so. For the Politiques is the harder study of the two'. From this it does not, however, follow that political philosophy is the higher or highest study, only that it is harder than geometry. Secondly, one should be careful about Hobbes's statements on his own ideas, especially those to do with mathematics. As Jesseph (1999, 4) has noted, Hobbes was not up-to-date with contemporary mathematics or even the important problems of mathematics in general. For Hobbes's own listing of his mathematical achievements see *OL*, I, xix.

sources that influenced thinkers in the early seventeenth century, it was not Euclid or Archimedes, but Pappus of Alexandria and his *Synagoge*.[790]

Another sketch is also needed, namely on secondary literature. The discussions on the unity or disunity of sciences in Hobbes are based partly on the various taxonomies of science in his works. A common interpretation says that Hobbes worked on a unified science of body, man, and citizen. This is also suggested by himself. In *On the Citizen*, he explains that the first section of his system of philosophy 'would discuss body and its general properties; the second, Man and his particular faculties and passions; the third, the Commonwealth and the duties of citizens.'[791] But then again, *Leviathan* and *Concerning Body* suggest something different.[792] For instance, in the latter Hobbes makes an explicit distinction between natural and civil philosophy:

> The principal parts of philosophy are two. For two chief kinds of bodies, and very different from one another, offer themselves to such as search after their generation and properties; one whereof being the work of nature, is called a *natural body*, the other is called a *commonwealth*, and is made by the wills and agreement of men. And from these spring the two parts of philosophy, called *natural* and *civil*.[793]

The two introduced views constitute two major readings of Hobbes's method, the hypothesis of single method[794] or the dependence thesis[795] and the hypothesis of a variety of methods or the independence thesis.[796] To say that there is only one method in Hobbes is to put forward a claim that Hobbes seeks to build up a system of science that starts from first philosophy and proceeds to geometry and natural philosophy, goes on to moral philosophy, that is, the theory of the human mind and behaviour, and lastly, to civil

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[789] Hobbes often refers to Euclid, but naturally mentions other mathematicians, like Archimedes. For a extensive list, see *Concerning Body* III.XX.6, 313-4 (cf. *EW*, VII, 188). Secondly, Hobbes repeatedly criticises Euclid and his definition of elementary notions, such as point and line (see *EW*, VII, 67, 200-3 and 211, *OL*, IV, 391-392. See also Jesseph 1996, 87-88 and 1999, 224-230.) Most, if not all, studies on Hobbes mention Euclid. See, for example, Peters 1967, 63-64; Watkins 1989, 24 and 28-29; Martinich 1999, 84-5; and Malcolm 2002, 6. Sommerville (1992, 14-15) has proposed that Gassendi influenced Hobbes's view of Euclid.

[790] See Malcolm 2002, Chapter 4. *Chatsworth Catalogue* (III, 160) reports the following work of Pappus: *Mathematicæ Collectiones*, a Federico Commandino Urbinate in latinum conversæ et commentariis illustratæ, Pisa 1588.

[791] *On the Citizen* 'Preface to the Readers', 13.

[792] See the table of sciences in *Leviathan* (IX) and *Concerning Body* I.1.9, 11-12. Cf. Martinich (1999, 276-8), who points out that taxonomies of science differ in *Leviathan* and *Concerning Body*. In *Leviathan* human nature and moral philosophy are part of natural philosophy, but in *Concerning Body* they are part of civil philosophy.

[793] *Concerning Body* I.1.9, 11.

[794] Schneewind (1998, 10) claims this to be a 'meta-assumption' of modern (moral) philosophy.

[795] Dependence is here referring to the idea that various branches of philosophy depend on each other.

[796] For versions of this, see McNeilly 1968, 71-72; 76-77 and 86.

philosophy. To say that Hobbes had methods is to put forward the claim that he had at least two different methods: one for natural philosophy and one for civil philosophy. Such is then, generally, the terrain of the discussion on Hobbes's method of science. In what follows, I will analyse these claims, first from a historical point of view, and then, from a more systematic point of view.

METHOD BEFORE HOBBES: EXCERPTS

The term method derives from the Greek words *meta* ('to follow') and *hodos* ('a way', 'system') and was first used in the technical and philosophical sense by Plato in *Phaedrus* in which the nature of dialectics is discussed.[797] This discussion is not only historically relevant and influential, but of particular help because it shows the original close relationship between method (*methodos*) and art (*technê*). In Plato, philosophical reasoning or dialectics consists of a combination of methods, which the later tradition has divided into four major types: the analytical, definitive, divisive, and apodeictic method. Plato's use of the term differs from those who followed him, but roughly speaking, the singular use of a method corresponds with art, and the plural use with dialectics, with the additional criterion that dialectics is argumentative, demonstrative , and rational. Further on in *Phaedrus* it is argued that methods create method, that is, dialectics constitute the art of philosophy. Here a familiar idea reappears. In the dialogue, Plato uses the term 'art' in the way Hobbes explained the use of the term, that is, as a general term when it is equivalent to the mastery of something and as a specific term referring to the idea of learning a specific skill, say, medicine or oratory. This is not to claim that Hobbes adopted the use from Plato, merely to say that there is ambiguity in the use of the term from the beginning of its history.

Aristotle, who inherits many of Plato's positions, tries to systematise the discussion on *technê* and *methodos*. The problem, however, is his general idea of science, which is based on the tenet that all the sciences have their own foundational principles (*archai*). Though Aristotle discusses the general conditions of scientific demonstration in *Analytica Priora* and *Posteriora*, he does not give a general account of method. The closest to this, it has been claimed, comes *Topica* where Aristotle speaks of dialectics. What remains sure is the platitude that Aristotle's ideas had a significant impact on Medieval and Renaissance discussions of method.[798]

To Aristotle, *methodos* is not a generic expression, but refers to a specific, that is, reasoned way of doing scientific research, which can be understood in two ways. Firstly, a more abstract reading says that different kinds of studies are committed to a single

[797] The salient passage is from 265d-277c. My discussion here ownes a great to deal to Gilbert 1960, Chapters 1 and 2.

[798] Gilbert 1960, 11-12.

method. It is perhaps best not to take this too literally to mean that there is a specific single scientific method, say, eliminative induction, but rather to understand it to refer to the idea that all scientific research requires certain common tools (logic) and general concepts (first philosophy).The second reading of the 'reasoned way' is closer to the common understanding of the term, namely as research that is done by following a certain method, say, the apodeictic.

Aside from Plato and Aristotle, method was discussed, to mention some prominent influences, by Stoics, the Greek mathematicians, the Commentators, and Galen. Of these the Stoic notion has already been mentioned in the previous chapter when explaining Hobbes's translation of Aristotle's *De Rhetorica*, whereas the influence of Galen on Hobbes is at its best indirect, that is, it came through the late Renaissance discussion of method. The same line of thought applies to the Commentators. Their influence on Hobbes must have been indirect and general. As transmitters of the ideas of Plato and Aristotle, they surely had an impact to their Medieval followers, and further on to Renaissance scholarship (where new editions and translations of their works were composed), and, perhaps, to Early Modern thinking, but this path falls outside the scope of my study. Additionally, though the influence of the classical mathematics and especially of geometry on Hobbes is significant, and though the Ancient commentators played a role in this, the classical mathematics is discussed here in the context of the revival of mathematics at the turn of the 17th century.

It is not completely clear why the original connection between art and method was forgotten for centuries, but one factor was that in Latin philosophy not only a certain terminology but also a certain conception of method was adopted and transmitted to the following generations. In the Latin lexicon of philosophy, the term *methodus* makes it first appearance in the texts of medicine and geometry where it does not 'have the broad and abstract meaning that Renaissance students (and we, following them) give to the term'.[799] The more common term that was used to refer to method was Cicero's *via et ratio*, which Quintilian, for instance, follows, and Cicero's conception of method was in essence a Stoical. Though it is not beyond dispute whether the expression was a direct equivalent of the Greek *methodos*, the early Latin writers, with the exception of Boethius, either hardly ever used the term *methodus*, or when they spoke of method they maintained the Ciceronian expression *via et ratio*.

In the Medieval world, though Moerbeke's translations use *methodus* for the Greek *methodos*, the majority of thinkers used other terms. Aquinas, for instance, uses the more customary expressions *via*, *modus*, *ratio*, and *ars*, whereas the original passages use *methodos*. Another influence came from Arab commentators, above all Averroes (Ibn Rushd), who established a metaphorical way of understanding method as 'a way'. Through the Latin translations of Averroes the expression *via doctrinae*

[799] Gilbert 1960, 48-49.

established itself in the medieval lexicon of method. The idea of a brief way or method as a set of rules manifested itself not only in the writings of Medieval thinkers like Peter of Spain's *Summulae Logicales*, but also in certain learned practices such as *disputatio*, which exemplifies how the original idea of dialectics was reduced to a formalised and institutionalised debate.[800]

In the Renaissance, the tendency to avoid the term *methodus* survived because here, as elsewhere, Cicero was the example. Gilbert refers to the oddities that Ciceronian purism led to. For example, in his translation of Aristotle's *Politica* Leonardo Bruni (1369-1444) uses 'no less than six different circumlocutions in six passages where William of Moerbeke consistently used one word: *methodus*'.[801]

The term *methodos* reappears in Renaissance philology. The pioneering etymological study of Guillaume Budé (1468-1540) reintroduced the various specific meanings that the "barbarous" *methodus* have had in Greek thought.[802] *Methodus*, then, found its way into translations and into the general discussion slowly and in the Stoic sense, as a set of rules and a brief 'way'. Such pioneers of humanist education as Rudolph Agricola (1442-1485) and Phillip Melanchthon (1497-1560) are taken to have held this view.[803]

It has been claimed that seventeenth-century thinkers inherited two or three ideas of method.[804] First was humanistic, where the aim was to give instructions on how to arrange different areas of knowledge, for example, meteorology, which deals with the 'Consequences from the Qualities of Bodies, *Transient*, such as sometimes appear, sometimes vanish'.[805] The other was the method of synthesis and analysis.[806] The humanistic method is usually linked to Petrus Ramus (1515-1572) and Ramism, whereas the central articulation of synthesis and analysis is thought to be given by Jacopo Zabarella (1533-1589).[807]

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[800] Other forms naturally existed, perhaps the most prominent being treatises on 'obligations', axiomaticed logical argumentation schemes. Of these, see Stump 1982 and Spade 1982.

[801] Circumlocutions include *doctrina*, *disciplina*, and *materia*. See Gilbert 1960, 61-63.

[802] The study was a commentary on the *Pandects* published in Paris in the 1530s. Budé's list became a standard and was included in Henri Estienne's (1528?-1598) influential *Thesaurus Graecae linguae* (1572).

[803] Gilbert 1960, 69-71.

[804] Dear (1988, 147-177), whom I follow here suggests that there are two models, whereas Jardine (1974) talks of three models, which are rhetorical, demonstrative, and axiomatic. See also Howell's pioneering work (1956, Chapter 6).

[805] *Leviathan* IX, 40 (table).

[806] Dear 1998, 148.

[807] For Ramus's logic, see Ramus 1964. On Hobbes and Ramism, see Harwood 1986 and Ong 2004. Zabarella's key ideas on method can be found in his *Opera Logica* (1607). On Zabarella's method, see Mikkeli 1992. See also Jardine 1988, 689-93.

A terminological clarification may explain why there has been much ado about nothing. In Late Medieval and Renaissance discussions on science, the term 'method' referred to the organisation of knowledge according to different subjects, where the expression *ordo*, or the logical technique of discovering knowledge, was, literally speaking, method (*methodus*). Rudolph Goclenius's (1547-1628) *Problemata logica*, for example, describes these terms in the following fashion:

> Ordo & Methodus interdum distinguuntur: ut ordo sit dispositio legitima praeceptorum disciplinae alicujus: Methodus vero sit processus declarandi & probandi praecepta illa: seu via, qua disciplinae partes ignotiores obscurioresque per manifestiora & notiora explicantur & demonstrantur.[808]

Secondly, method can be considered in two principal ways: as a way to teach and as a way to make scientific discoveries and demonstrate them. The Stoic conception of method emphasised the pedagogical aspect of method. The Medieval curriculum had already emphasised what Gilbert baptises as the artistic method, which 'was concerned with teaching of the arts and with communication in general' and originated with Socrates. This Gilbert opposes to what he calls the scientific method, which aims 'to develop explicit criteria of demonstrative procedure' and is normally attributed to Aristotle.[809]

It was in the ethos of the Renaissance to emphasise that method was about teaching. Many Renaissance thinkers criticised the Medieval *lecture* (a reading of and commenting on a text in classroom) and *disputation* (a formal debate), and their written equivalents *commentaries* and *quaestiones*. During the Renaissance, these were increasingly replaced by manuals and handbooks in the lesser and higher arts, starting from grammars and ending with textbooks in law and theology. Whatever the subject, the two central ideas in textbooks were that the subject matter should be easily digested and quickly internalised. This was complemented by exercises which practised the rules, that is, by reading the classical authors and imitating them. This sort of procedure became widely accepted in Renaissance education. The Christian humanist Johannes Sturm (1507–1589), for instance, promoted it in his commentaries,[810] but the pedagogical aspect of art found its most systematic expression in *Ratio Studiorum*, the educational system of the Jesuit order completed in 1586.[811]

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[808] Goclenius, *Problemata Logica*, V, 3.

[809] Gilbert 1960, xxiv-xxv.

[810] For these, see Sturm 1586. Sturm's influence was significant. Ramus was his student in Paris and Roger Ascham (1514/15-1568) corresponded with Sturm. Ascham's *The Scholemaster*, though published posthumously in 1570, had huge impact on late 16th century education in England. See O'Day (2004) and Skinner 1996, 20-21.

[811] The programme was ratified in 1595. The documents with revisions were edited by Pachtler 1887-1894.

Gradually the humanist conception of education invaded most areas of learning. A significant sidetrack of this development being the *quadrivium* or mathematical arts.[812] Though the *ad fontes* started already at the end of 15th century it was the rediscovery of Pappus that is taken to have prompted the further development. Two issues in particular were discussed: was it possible to reduce mathematics to Aristotelian syllogistic and what was the difference between mathematical and non-mathematical analysis? Though some tried to carry out the first, many agreed with the Jesuit mathematician Clavius (1537-1612) that there was no point in trying to transform 'linear proofs' of mathematics into the language of syllogistics.[813] This line of thought has a background that starts from one of Aristotle concerns.

Aristotle thought that to use the methods of one science, say, those of geometry, in another, say, in physics, is a "category mistake" (*metabasis*).[814] Aristotle believed that sciences have their own specific principles (*archê*) and, consequently, contra Plato, that there is no universal science that could cover all possible areas of human knowledge, even arithmetic and geometry had their own principles.[815] However, some sciences fall under the other, like 'optics to geometry […] and star-gazing to astronomy'.[816] What particularly worried Aristotle was mixing mathematics and physics. Exactly why is not clear, but a possible answer could be something like this.[817] It has been proposed that Aristotle understood mathematics as a language.[818] This allowed him to reject the idea that mathematical objects have their independent realm and could maintain the idea that also mathematics is also about sensible objects. He writes in *Physica*:

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[812] On this, see Gilbert (1960, 81-92) and Kline (1990, Vol. 1, 220-223), which should be read however in the light of Grant (1996, 44-47).

[813] Conrad Dasypodius and Christianus Herlinus (1566), teachers in mathematics at the university of Strasbourg founded by Sturm, 'attempted to cast the proofs of Euclid (or rather, as he thought, those appended to Euclid's theorems by Theon) into syllogistic form' (Gilbert 1960, 89).

[814] *Analytica Posteriora* 75a38-75b9. For a discussion, see Funkenstein 1986, 36-37 and 303-307. Logically speaking, in this sort of syllogism the middle term is not of the same kind. The syllogism: $A \subset B$, $B \subset C \rightarrow A \subset C$, is false, because B stands for different things in relation to A and in relation to C. Cf. *Analytica Posteriora* 79a34-b23.

[815] The general claim can be found in *Analytica Priora*, 46a17-27 and *Analytica Posteriora* 76a31-36 and 78b35-79a15, the particular in *Analytica Posteriora*, 75b10-20 (see also 74a18-20). Note that Aristotle mentions that there are some special cases when the border between geometry and arithmetic can be crossed. Elsewhere (see, for instance, *Metaphysica* 1026a23 and 1077a9-10) he also speaks of universal mathematics. From this it has been concluded that to apply cross-disciplinary methods is an invention of the seventeenth-century. See Funkenstein 1986, 6, 15 and Chapter V, esp. 307-317. On Aristotle's philosophy of mathematics, see Lear 1982.

[816] *Analytica Posteriora* 78b38-39.

[817] I do not share Funkenstein's (1986, 304) conjectural claim that the basis of this is irrational or theologically motivated fear.

[818] Funkenstein 1986, 305. Aristotle discusses the ideas introduced here in *Physica* II.2 and *Metaphysica* XIII.3. Funkenstein's reading seems to be based on the way Aristotle speaks of mathematics especially in *Metaphysica*, for instance, 1077a9-10 and 1077b18.

> [M]athematician, though he too treats these things [that is, natural bodies], nevertheless does not treat them as the limits of a natural body; nor does he consider the attributes indicated as the attributes of such a bodies. [...] Similar evidence is supplied by the more natural of the branches of mathematics, such as optics, harmonics, and astronomy. These are in a way the converse of geometry. While geometry investigates natural lines, but not *qua* natural, optics investigates mathematical lines, but *qua* natural, not *qua* mathematical.[819]

In more technical words, though Aristotle allowed the idea that numbers represent lines, even that they represent time, this was only by analogy. It is this last idea that differentiates Aristotle from classical mathematics. The Greek mathematicians, like Euclid or Archimedes, did not have such restrictions.[820]

A reason for mathematics being in a somewhat dormant state up to the end of the 16th century was the influence of Aristotle's ideas on science and demonstration, which included the ideas of discipline-specified *archê* and of *metabasis*.[821] These presuppositions and the strong emphasis on logic made mathematics a kind of ancillary and applied discipline and it was not until the 16th century that mathematics as a discipline in its own right became the subject of specific consideration.[822]

As indicated, when the interest in mathematics grew, the work of Pappus became central. The specific relevance here is that his work contains a formulation of the method of synthesis and analysis that is close to that of Hobbes.[823] Pappus understands synthesis and analysis in a way that bears a resemblance to Aristotle, but in a compact form and with certain additions. As with Aristotle, synthesis is a method of demonstration, while analysis is the method of discovering. Usually analysis precedes synthesis, and, under certain conditions, analytical reasoning can be transformed into synthetic reasoning.[824] In the seventh book of *Synagoge*, Pappus summarises what is meant by synthesis and analysis in geometry:

> Now, analysis is the path from what one is seeking, as if it were established by way of its consequences, to something that is established by synthesis. That is to say, in analysis we assume what is sought as if it has been achieved, and look for the thing from which it follows, and again what comes before that, until by regressing in this way we come upon some one of the things already known, or that occupy the rank of a first principle. We call this kind of method 'analysis', as if to say *anapalin lysis* (reduction backward). In synthesis, by reversal, we

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819 *Physica* 193b31-33 and 194a7-11.

820 See Book 10 of *Elementa* and the supplement in *The Works of Archimedes* 7, 13-14.

821 This claim relies on Funkenstein's study, which, though it bears some truth in it, should be read in the light of more detailed and balanced discussions of mathematics in the Middle Ages. For these, see Kline (1990, Vol. I, Chapter 10) and, in particular, Grant 1996 (44-47, 148-152, and Chapter 8).

822 For a differing view according to which in the 17th century philosophical reflection about the nature of mathematics did not influence the actual development of mathematics, see Mahoney 1998, 742.

823 For a history of analysis in geometry, see the classical study by Hintikka and Remes (1974).

824 Cf. Jesseph 1999, 226-227

> assume what was obtained in the last analysis to have been achieved already, and setting now in natural order, as precedents, what before were following, and fitting them to each other, we attain the end of the construction of what was sought. That is what we call 'synthesis'.[825]

After this Pappus distinguishes between the two kinds of geometrical analysis: theoretical and problematical. In the theoretical analysis something is assumed to be true and then the consequences of the assumption will be studied until something is either found to be true, when the assumption studied is true, or if not, the assumption is false. This sort of analysis was also described as the demonstrative analysis. Problematical analysis addresses a different need, namely that of solving problems and constructing (geometrical) objects. Again analysis starts from an assumption that something is true and proceeds until we find this to be or not. However, the criterion of truth is of a certain kind. If something is possible, it is true (what mathematicians call 'given').

The revived interest in mathematics culminated in the debate commonly referred to as *Quaestio de Certitudine Mathematicarum*. The debate was about two issues. The first considered whether or not mathematics in any way suited the Aristotelian conception of science; or to put it more generally: What are mathematical demonstrations? The second, consequent question was: If the certainty of mathematics is not in its logical structure, then what other basis could there be? Both questions received numerous answers, but instead of repeating them, I shall concentrate on issues that are relevant to Hobbes.

The first idea was the answer to the latter question by Alessandro Piccolomini (1508 - 1579) in his *Commentarium de Certitudine Mathmeaticarium Disciplinarum* (1547). After defining rather strong requirements for these kinds of demonstrations, Piccolomini proposed that mathematical demonstrations are not *potissima*.[826] However they are certain because the objects of mathematics are the clearest and surest creations of the human mind.[827] The second issue concentrated on the question whether or not mathematical demonstrations are causal. The typical negative answer said that the *essentia* of a mathematical object did not give knowledge of what will follow from it, and therefore it was not a genuine *apodeixis tou dioti*.[828] Some, however, thought that mathematics could be defined in a way that fulfils the condition of Aristotelian science.

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[825] Pappus 1986 [ca. 340]), 82. Cf. *Concerning Body* III.XX.6, 311. On the relevance of Pappus in the seventeenth-century, see Molland 1993, 107-8.

[826] *Potissima* was the third type of demonstration Aristotle mentions in his works (others were *apodeixis tou dioti* and *apodeixis tou hoti*). This, the highest sort of demonstration was emphasised by Averröes in his commentary on Aristole's *Physics* and, for example, Aquinas gives it a systematic treatment in his commentary on *Analytica Posteriora*.

[827] Piccolomini, *Commentarium de Certitudine Mathmaticarium Disciplinarum*, Chapter 11. Cf. Mancosu 1996, 11-12.

[828] Among the many Aristotelians who resisted the mathematising of physics Mancosu (1996, 14-15) mentions a Jesuit Benito Pereyra (1535?-1610), who gives this argument in his *De Commonibus omnium rerum naturalium principiis et affectionibus* 1576 [1562], 24.

Giuseppe Biancani (1566-1624), for example, in his *De Mathematicarum Natura* (1615) put forward an argument that mathematical objects are abstractions of sensible matter that are located in the divine or human mind, and, in particular, that the mistake is in not understanding that mathematical objects, those of geometry as well arithmetic, are limited quantities.[829] Aside from these ideas there was an mediating view, represented for example, by the Jesuit Clavius, according to which mathematics was important even if it was not a causal science.[830]

Renaissance humanism also applied to mathematics and this tendency lasted well beyond the 16th century. As Gilbert duly writes: 'not even the haughty Descartes discarded the books of Euclid, Pappus, or Diophantus.'[831] This humanistic movement, which, perhaps somewhat naively, aimed at the reconstruction of Classical mathematics, was alive and well even during the time of Hobbes. In relation to this it may be instructive to give a brief note.

Hobbes learned mathematics from a number of his friends and colleagues in England and France who included, among others, Robert Payne, Gilles Personne du Roberval, and Marin Mersenne.[832] The relationship between all three and Hobbes has been studied, but the last not so much in the field of mathematics.[833]

Both Mersenne and Hobbes received an education that can be described as humanistic and Aristotelian. Mersenne went to the Jesuit College at La Flèche and studied a rather conventional curriculum.[834] In the beginning of his academic life, Mersenne shared the idea of humanist mathematicians that the advancement of mathematics lies in the restoration of ancient knowledge, not in new innovations, which was the view put forward above all by Descartes.[835] As Dear points out, 'the new developments in algebra seem to have quite left Mersenne behind: he never addressed them in his own writings'.[836]

To summarise, Hobbes's ideas of scientific method have their origin in ancient discussions, but combined two elements: as a humanist Hobbes could show interest in

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[829] See Mancosu 1996, Chapter I.

[830] See Mancosu 1996, Chapter I.

[831] Gilbert 1960, xvi.

[832] On Hobbes and Payne, see Malcolm 2002, Chapter 4 (especially 96). On Roberval and Hobbes, see Malcolm 2002, Chapter 6. On Mersenne and Hobbes, see Malcolm 2002, 12 and 16-7 and Jesseph 1999, 91. In general, Hobbes's mathematical career is discussed by Jesseph (1999), where an extensive list of contacts, influences and ideas can be found. For a list of persons who influenced Hobbes's mathematical ideas, the biographical register in *Correspondence* is also useful.

[833] I follow here rather directly Dear 1988.

[834] Dear 1988, 13.

[835] Dear 1988, 12. For Descartes's own view, see his *Geometry* (AT VI: 306).

[836] Dear 1988, 12 note 18.

ancient mathematics and as a person interested in the latest currents in science he would have been aware of the contemporary debate on the scientific basis of mathematics.[837]

THE QUESTION OF RHETORIC

A different but connected view opens when the question of method is reflected from the point of view of literary humanism. This humanistic reading of Hobbes's method has been the second major reading in the recent decade or so, and the most elegant and detailed argument is provided by Skinner. With minor violence it is possible to divide Skinner's account into two parts: a view of what classical oratory was, and a view of how Hobbes is taken to treat this tradition. Before proceeding to these, the relationship between classical oratory and Tudor rhetoric needs to be discussed.

At the end of the 16th century the British educational system considered rhetoric in a Ramist manner. In the Ramist programme rhetoric, classically understood, needed to be replaced by logic, or dialectic, understood broadly as a general art of reasoning.[838] From this it does not follow that only the Ramist conception of rhetoric was taught and that the rest of the humanist curriculum, including rhetoric, neglected. Quite the opposite, many of the classical ideas became relevant at the turn of the 16th and 17th centuries. In what follows, some general features of classical rhetoric will be briefly discussed. This will by followed by an analysis of the relevance of the *ars rhetorica* to Hobbes.[839]

A striking feature of classical oratory is its uniformness, which is based on Aristotle's typology presented in *De Rhetorica* Book I, Chapter III. Aristotle writes that '[r]hetoric falls into three divisions, determined by the three classes of listeners to speeches' and, accordingly, there are three kinds of orations: 'deliberative, forensic, and epideictic'.[840] Of the three, the first, *genus deliberativum*, as it was referred to in the Roman world, was of particular interest.

Following Aristotle, the Roman orators explained that deliberative oration is used for 'exhortation and dehortation', and its proper end is to show a person or a thing as profitable or unprofitable. Here we have a slight disagreement with the Philosopher and his followers. Cicero, for example, casts doubt on whether the end of this kind of oration is really profit or unprofit. Instead of mere *utilitas*, the author of *De Inventione*

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[837] Compare how Howell (1956, 375) summarises the constituents of Bacon's idea of method: 'Thus Bacon stands as a composite of scholasticism, of Ramism, and of something that looks to the future'.

[838] On Ramus and English Ramism, see Howell 1956, Chapter 4; Ong 1958; and Gilbert 1960, Chapter 9. For some of the central Tudor works, see Skinner 1996, 61-62.

[839] Much of what I say here draws on Skinner's (1996) work, to which I am indebted.

[840] *De Rhetorica* 1358a36-1358b7. For a discussion, see Skinner 1996, 41-45. The division was determined by the public life of the Greek *polis*.

proposes that the end of deliberative oration is *honestas et utilitas*.[841] Both, Aristotle and his Roman followers, however, thought that the arena of deliberative oration is politics, though the Roman authors limited it especially to the Senate.[842] These kinds of speeches are, Skinner concludes, 'the central and inescapable idiom of *scientia civilis*'.[843]

The second major area of rhetorical education deals with the abilities of the orator. *Rhetorica Ad Herenniam*, the central document in Roman oratory, introduces the required five skills: *inventio* was 'the capacity to find out the considerations, true or plausible, that may serve to make our cause appear probable'; *dispositio* referred to the capacity 'to order and distribute things we have found out in such a way as to indicate how they can best be placed'; *elocutio* meant 'the application of appropriate thought and words to describe the things we have found out'; *memoria* consisted of 'the capacity to hold firmly in the mind the things we have found out, the words in which we wish to express them, and the order which we wish to present our argument', and *pronuntiatio* was 'the regulation of voice, countenance and gesture in a temperate and elegant style'.[844]

Of these the first, *inventio,* is considered to be the most important and difficult. Some authors associate *inventio* and *dispositio*, but Cicero defends the latter's independent role. Another matter of dispute was the parts of *dispositio*. Those like Hobbes, who follow Aristotle, suggest that there are four major parts: *proeme, proposition / narration, proofs* and *epilogue*. Proofs are divided into sub-parts called: *confirmation, confutation, amplification,* and *diminution*. In contrast, Quintilian gives a six-part structure to oration: *exordium, narratio, divisio, confirmatio, confutatio* and *conclusio.*

Elocutio, that is, the speech itself, was considered to have two distinct features. First is the ability to speak purely and clearly, and here an important point arises. Contrary to their later reputation, many Roman rhetoricians emphasise plainness as an essential feature of true eloquence. The second feature of *elocutio* is good style or *ornatus.* The orator must give special attention to his words and the rhythm of speech. Again this does not refer, as it is so often misunderstood, to ornamentation or decorative speech. Rather it refers to the original use of the term, meaning proper weapons and other equipment of battle. This aspect of battle, a war of words, is central when trying to understand the classical rhetoric tradition.

Verbal battles used two methods. One was to challenge a present state of affairs or conceptions and then attack or defend it. The other was to use concrete strategies, the

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[841] *De Inventione*, 325.

[842] Skinner uses here Hobbes's translation, which, as Harwood duly notes (see note 7 on page 42 of *Rhetoriques*), 'omits 1.4-4.6, a passage where Aristotle describes the complex relations between the *art* of rhetoric and such sciences as political science'.

[843] Skinner 1996, 44.

[844] Cited in Skinner 1996, 45-46. For the originals, see *Rhetorica Ad Herenniam* I.II.3.

tropes and so on that were used in speech. What both are essentially concerned with are techniques of redescription and it is this element of the *ars rhetorica* that proves to be most interesting.

The first strategy of redescription is to question an existing description. A typical example is to a claim that one was not committing a murder, but merely killing.[845] The typical remedy is a procedure which consists of a proper analysis of (key) terms, say, murder or theft, and an illustration of what it means in practice.[846] Later, in *Rhetorica Ad Herennium*, the manipulation of definitions was clearly understood as an aspect of *ornatus*. In the work, the level of terms is also more significant, it considers such central issues as justice and courage. Here the clearly moral spirit becomes evident. To manipulate the meaning of words is to alter one's moral status. However, manipulation is a clumsy strategy, and therefore, classical rhetoricians turned to the next strategy. This is the restaging of actions. Here the error in evaluating a situation is not in the terms, but in how we understand its character.

There is a difference between the two strategies of redefinition. Whereas in the first people really argue about how something is defined, in the latter they agree on a certain description, but disagree whether or not an action falls under it. The skilful orator concentrates on the latter with the help of the former, and holds that there is 'no categorical distinction [...] between descriptive and evaluative terms'.[847] The standard name for this strategy was *paradiastole*.

Paradiastole is based on a peculiar moral philosophy, that is, Aristotle's doctrine of mean and the rhetorical manipulation of words accordingly. Other central articulations exist, Thucydides pointed out that in an age of political disorder language itself starts to become similarly disordered and Plato and Isocrates can be taken to adopt the same idea in their works. In a similar fashion, many Roman moralists and historians like Cicero and Sallustius (86-36) base their work on this idea, but, according to Skinner, especially Tacitus (ca. 55-117) emphasises the *paradiastole* as 'a means of excusing vice'.[848] The tradition continues in Renaissance thinking and, in particular, in late 16^{th-} century English humanism. The opening of the 17th century changed the debate; in England especially poets and moralists began to demand that *paradiastole* should be neutralised and outlawed from moral and political debates, but how precisely this was exactly to be done remained open.

The deeper philosophical problem behind the debate on *paradiastole* concerns the possibility to use evaluative terms without ambiguity. If rhetoric is just a clever way of defending any kind of moral values, it is dangerous and false. Here we have an old

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[845] See, for example, *De Rhetorica* 1374a1-15.

[846] *De Inventione* I.VIII.II

[847] Skinner 1996, 145.

[848] Skinner 1996, 163.

debate that can be traced back to Euripides and *Medea*, which was among the first works that was accused of spreading moral relativism.[849] It also here where Hobbes comes into the picture.

If I have understood correctly, the argument that Hobbes's (civil) philosophy and his method here are based on the tradition of *ars rhetorica* goes as follows.[850] The role of rhetoric in the grammar schools and of political argument in the Tudor age was significant. The heritage of classical rhetoric was adopted, but also reflected and this caused some changes. From the beginning of the 17th century rhetoric starts to lose its prominent place in education and politics and assimilates a new kind of discourse. This can be seen in language; for example, *sarcasmus* becomes sarcasm. The objection to this was that there was no need anymore to know what the exact contents of the classical ars rhetorica are, one can just use it as a tool for mockery and ridicule.

It is clear that Hobbes's examination of literature and style establishes a division of labour between the arts and philosophy. In *Leviathan* he writes:

> In Demonstration, in Councell, and all rigorous search of Truth, Judgement does all; except sometimes the understanding have need to be opened by some apt similitude; and then there is so much use of Fancy. But for Metaphors, they are in this case utterly excluded. For seeing they openly professe deceipt; to admit them into Counsell, or Reasoning, were manifest folly.[851]

To this is related a more general argument that to Hobbes there was no grave distinction between the arts and philosophy.[852] In 'A Review and Conclusion' of *Leviathan* Hobbes even appears to oppose views in which 'the celerity of fancy and the severity of judgement' cannot coincide in politics:

> [T]hese are indeed great difficulties, but not Impossibilities: for by Education, and Discipline, they may bee, and are sometimes reconciled. Judgment, and Fancy may have place in the same man; but by turnes; as the end which he aimeth at requireth. As the Israelites in Egypt, were sometimes fastened to their labour of making Bricks, and other times were ranging abroad to gather Straw: so also may the Judgment sometimes be fixed upon one certain Consideration, and the Fancy at another time wandring about the world. So also Reason, and Eloquence, (though not perhaps in the natural sciences, yet in the moral) may stand very well together. For wheresoever there is place for adorning and preferring of Errour, there is much more place for adorning and preferring of Truth, if they have it to adorn.[853]

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[849] For this and further developments, see Skinner 1996, 175-180.

[850] This is a paraphrase of Skinner 1996, 211.

[851] *Leviathan* VIII, 34.

[852] Many writers have emphasised the relevance of the text to Hobbes. See, for example, Thorpe 1940, 80-82; Wolin 1970, 30; Cantalupo 1991,72; Prokhovnik 1991, 56 and 87; and Skinner 1996, 333 and 363-370.

[853] *Leviathan* 'A Review and Conclusion', 389-390.

Whether there really is in Hobbes a union of philosophy and oratory or as it has been so aptly called, reason and rhetoric, requires some further reflection.

Traditionally philosophy and rhetoric are seen as opposites.[854] The simple argument against rhetoric and on behalf of philosophy appeals to the idea that the aim of philosophy is truth, whereas the aim of rhetoric is victory. In rhetoric, the intention of a speaker is morally dubious, while in philosophy it is morally laudable. The view characterised here could also be taken to be Hobbes's, especially in *Elements* and in *De Cive* (both contain statements about the dangers of seditious speech, ornamentation, analogy, and all the rest of the misleading verbal techniques).[855] The idea should, however, be read as a statement against the abuse of language. In the previous chapter I tried to establish that this general principle prevails in Hobbes's account of style where it is manifest in two ways. First, as in philosophy, so in other literary forms, a writer needs to follow certain rules of discourse, the rules that are expedient from the internal point of view of the discourse in question. What is forbidden in epic, may be allowed in satire. Second, in all literary activity the writer should express him- or herself in an understandable manner. Poetry and other forms of literature have their own instances of *nunc-stans*, that is, expressions that are absolutely excluded because of their obvious absurdity. Therefore, what Hobbes says about judgement and fancy in the passage just quoted may refer to the internal rules and, consequently, that the balance between fancy and judgement is different in arts than it is in philosophy.

Secondly, on the basis of the major evidence, it is tempting to make eloquence and philosophy bedfellows.[856] Hobbes's use of the plural form in the central passage quoted above implies that moral sciences could also include civil philosophy[857] and the opposition between natural and moral sciences implies that the latter are something different. My claim, however, is that eloquence is not a part of civil philosophy, but a

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[854] Typically the confrontation is traced back to Plato (see for example *Phaedros* 266a-268a). For a critical and extensive discussion, see Chapter 2 in Vickers 1988. Some authors, for example Chaïm Perelman, have proposed that the division is older and comes from Parmenides (fragment 8 appear to defend this claim). See also Chapter 1 in Perelman 1977. Note that Vickers and Perelman use different classifications. The former proposes that Plato was against rhetoric, but not dialectics, whereas the latter operates with the division between analytic and dialectical reasoning that he adopts from Aristotle (See *Analytica Priora* 24a-b15, *Topica* 100a-101a20, *De Rhetorica* 1354a1). Therefore in the light of Vickers, Perelman does not discern all the aspects of Plato's argumentation. But, again, from Perelman's point of view, Vickers (1988, 161) simply reiterates the standard view on Aristotle. For a mediating and insightful view on Plato's position, see Williams 1993, 156.

[855] See *On the Citizen* X.11, 123. Cf. *Elements* XXVII.14. However, an important distinction between the proper, lucid eloquence and the false eloquence is made in *On the Citizen* XII.12, 139. Cf. *Elements loc.cit*.

[856] See Condren 1991.

[857] Hobbes does not always make a distinction between moral and civil philosophy. See, for example, *Leviathan* XV, 80. But then again, ethics and 'Politiques' are clearly something different. See above all *Leviathan* IX. For an attempt to clarify this relationship, see *Concerning Body* I.I.9, 11-12.

part of politics, or 'civil' life. There are a number of things that can be pointed out in support of this.

In the period Hobbes composed his political treatises, the public debate was rather vehement as the Declaration of the Army, dated 1st of August 1650, shows:

> [A] second testimony [that is, the Second Civil War] given from heaven to justify the proceedings of his poor servants against that bloody Antichristian brood, though with the loss of many precious Saints – we were powerfully convinced that the Lord's purpose was to deal with the late King as a man of blood. And being persuaded in our conscience that he and his monarchy was one of the ten horns of the Beast (spoken of, *Revelations* 17.12-15), and being witnesses to so much of the innocent blood of the Saints that he had shed in supporting the Beast, and considering the loud cries of the souls of the Saints under the altar, we were extraordinarily carried forth to desire justice upon the King, that man of Blood.[858]

Whether or not it is a good argument for justifying regicide, the style of the passage reflects what was the bread and butter of politics in Hobbes's times. However, instead of adopting one of the extremes (to deny its existence or to approve eloquence) Hobbes recognised the power of eloquence and tried to understand what it was about.

The text should be read in its context, which I believe to be that of politics understood as everyday political life. What Hobbes speaks about in the opening of the 'Review' are 'Civill duty' and 'Civill Amity', that is, how men should behave in public life, whether in office or as an ordinary subject, not how civil philosophy is to be conducted.[859] Education and discipline, discussed in the opening refer to this public behaviour. Here the role of poetry is illuminating. Good poetry aims at education and discipline, and may contribute to harmonious and expedient civil life and human flourishing, but this is a sort of additional good and should be separated from civil philosophy. The same line of thought applies to rhetoric though one should be more cautious in the case of this art. Lastly, the example Hobbes gives seems to support the argument. When speaking of the contrast between human nature and civil duties, Hobbes refers to Sir Sidney Godolphin (1610-1643) in whom these two elements have come together in a perfect balance. Aside from being, say, a gesture of personal gratitude, or an attempt to strike an even balance in an inflammable political situation,[860] the closing of this paragraph tells us that the opening of the 'Review' is a kind of introduction to the more theoretical summary of the book, not Hobbes's statement of what civil philosophy should be.

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[858] For a discussion, see Crawford, 1977. Cf. Skinner 425. I am grateful for Dr. Clive Holmes (Lady Margaret Hall, Oxford) for this piece of information.

[859] *Leviathan* 'A Review and Conclusion', 389-390.

[860] *Leviathan* is dedicated to Mr. Francis Godolphin, the brother of Sir Sidney Godolphin who left some money to Hobbes. Though both Godolphins were royalists, this was a more cautious dedication than to dedicate the book openly to Charles II.

It is now possible to see the thematic link between the prevailing pictures of Hobbes as a humanist or as a scientist and the various traditions of method discussed. What has been argued here is that both readings are in a way misleading. The humanist reading because it makes Hobbes's philosophical thinking only a delicate adaptation of rhetoric, the scientific reading because it misses the rhetorical dimension in Hobbes's thought, but also because it misconstrues the origins of Hobbes's idea of philosophy as a mixture of 16th century Aristotelianism and pioneering modern science.

It is likely that Hobbes was unable to fully overcome the above characterised mixed (*ordo* and *methodus*) use of the term 'method' and that he used the terminology of method in the established manner, for instance, that method consists of synthesis and analysis. Especially, Aristotle's classifications seem to be deeply rooted. A comparison with the architects of the Organon of new philosophy, Arnauld and Nicole, may help to see Hobbes's position:

> The art of arranging a series of thoughts properly, either for discovering the truth when we do not know it, or for proving to others what we already know, can generally be called method. Hence there are two kinds of method, one for discovering the truth, which is known as *analysis*, or the *method of resolution*, and which can also be called the *method of discovery*. The other is for making the truth understood by others once it is found. This is known as *synthesis*, or the *method of composition*, and can also be called the *method of instruction*.[861]

It is surprising how similar to Aristotle and scholastic terminology the wording of Nicole and Arnauld is. The same line of thought applies to Hobbes.

Hobbes's relationship to Aristotle and to Aristotelianism and the Scholastics has been widely discussed. In general, the relationship is twofold. It is clear that his philosophical works partly operate in a framework that is based on the writings of Aristotle, but it is also clear that he writes of Aristotle, Aristotelianism, and especially Scholastics in a way that does not seem to leave place for conjecture.[862] For example, in *Leviathan* Hobbes writes:

> And I beleeve that scarce any thing can be more absurdly said in naturall Philosophy, than that which now is called *Aristotles Metaphysiques*; nor more repugnant to Government, than much of that hee hath said in his *Politiques*; nor more ignorantly, than a great part of his *Ethiques*.[863]

A closer and more extensive look at Hobbes's however work, however, shows that the case is more complicated. First, when Hobbes writes more specifically on false

[861] Arnauld and Nicole 1996, 233.

[862] As such the claim that Hobbes opposed scholastics is rather empty, because scholastics as well as Aristotelianism were not homogenous theories, but quite the opposite. I will try to explicate the exact goal of Hobbes's criticism below.

[863] Leviathan XLVI, 370.

metaphysics, it is not Aristotle only or even mainly who is the source of erroneous views: 'Now to descend to the particular Tenets of Vain Philosophy, derived to the Universities, and thence into Church, partly from Aristotle, partly from Blindnesse of understanding'.[864] Secondly, from time to time Hobbes criticises the schoolmen, who only take from Aristotle what is in agreement with their opinion[865] or read his texts without understanding them. Hobbes then seems to defend Aristotle against the ignorant and unlearned.[866]

Furthermore, there are similarities between Hobbes and Aristotle.[867] Often the idea is that Hobbes adopts certain features of Aristotelianism.[868] My claim is different. Naturally there are significant differences between Hobbes and Aristotle especially in metaphysics and politics,[869] but it is not as far-fetched as it may appear to claim that it is the ignorant interpretations of Aristotle that Hobbes is criticising, not Aristotle's thinking *per se*. For instance, Chapter IV of *Leviathan* seems to offer an example where Hobbes seem to defend Aristotle against dogmatists:

> By this [dogmatic adoption of ideas] it appears how necessary it is for many that aspires to true Knowledge, to examine the Definitions of former Authors; and either to correct them, where they are negligently set down; or to make them himselfe. For the errours of Definitions multiply themselves, according as the reckoning proceeds; and lead men into absurdities, which at last they see, but cannot avoyd, without reckoning anew from the beginning: in which lyes the foundation of their errours.[870]

Hobbes does not suggest that earlier ideas are useless; only that we should understand them and if they are false, correct them. Hobbes's materialism can be seen as this kind of attempt to correct false theories (like idealism and dualism) on the nature of reality.[871] It is not then the case that everything written by Aristotle is by definition without value. Taking into account the fact that in *Leviathan* Hobbes quite consistently attacks 'the Schools', it can be concluded that the primary target of his critique is the combination of

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[864] *Leviathan* XLVI, 371.

[865] See *Behemoth*, 216

[866] Perhaps the best example of Hobbes's defence of Aristotle against the schoolmen is *Critique du 'De Mundo'*, see especially VII and IX.16.

[867] This is not a new idea. After all Hobbes translated Aristotle's *De Rhetorica* and considered it 'rare'. There are a number of works that have studied the similarities between Aristotle, Aristotelianism, and Hobbes, for example, in theory of emotions (see James 1997, 132-3) and *philosophia prima* (see Sorell 1999, 372), which also compares Hobbes and Aristotle more generally.

[868] For example Leijenhorst, 2002, 'Conclusion'.

[869] See *Leviathan* XLVI, 371-380.

[870] *Leviathan* IV, 15. As is well known, Aristotle often begins his discussions by going through what predecessors have said.

[871] For another example, see *Critique du 'De Mundo'* XXVII.3, 316.

(Catholic) religion and scholastic or Aristotelian philosophy.[872] The aim of this short discussion is to give room for a tolerant view of the relationship between Hobbes and the tradition of philosophy.

This conclusion seeks to explain why it may be rather difficult to decide what the origins of Hobbes's idea of method were. What remains sure is that Hobbes's conception of method is a part of a complex history and, what has here been implicit, that it is the interest in mathematics and its conception of method that is central when trying to give a substantial account of his way of doing philosophy. The argument, then, is not that Hobbes invented a new method. A more precise way to express his novelty is to say it was the application of some theoretical reflections that brought Hobbes his lasting fame in the pantheon of modern thought.

The novelty of Hobbes's method is not a straightforward adaptation of the deductive-axiomatic model of geometry, the Padovan conception of composition and resolution, or of humanist critical dialectics. Instead, Hobbes uses the general terminology of synthesis and analysis, largely based on a rereading of classical geometry, and applies it to different phenomena.[873]

HOBBES ON METHOD AND ARGUMENTATION

Moving into the internal development of Hobbes's method does not make things clearer. Partly the problem lies in Hobbes's own writings, partly in interpretations. Hobbes's own works appear to contradict each other, but above all they become an increasingly unreliable guide to his actual practice.[874] This holds true especially in the case of *Leviathan*. The significance of the work is often taken to be in its content, that is, the political ideas Hobbes develops in the book. Though it is hard to disagree with the claim,[875] here I shall investigate whether the book could also help us to understand the nature and development of Hobbes's idea(l) of philosophy and science.

'[T]the obvious paradox that Hobbes seems to categorically argue against figurative language in philosophy, while at the same time expressing his own philosophical argument in at times distinctively figurative language'[876] has not led

[872] For Hobbes's own formulations, see *Leviathan* XLVI, 371 and *Behemoth*, 184-185.

[873] For an apt example that discusses the corruption of political power, see *Leviathan* XLVII, 384-385 ('But as the Inventions of men are woven, so also are they ravelled out; the way is the same, but the order is inverted. The web begins at the first Elements of Power [...] but also scandals, apt to make men stumble one time or other upon the suppression of their Authority.')

[874] Cf. Malcolm 2002, Chapter 5.

[875] See however Strauss 1952, 170.

[876] Prokhovnik 1991, 105.

modern scholars[877] to the same conclusion as Taylor, who thought *Leviathan* 'a rhetorical and, in many ways, a popular *Streitschrift*'.[878] And so we are left with a legion of interpretations. Some of them hold that Hobbes developed a uniform or core idea of science, which after the 1630s he maintained through out his career, while others propose that he had one method for natural philosophy and one for civil, and from some works we learn that he changed his idea of civil philosophy. Again, many of these works offer insights that are valuable and various readings have more or less convincing internal evidence (i.e., from Hobbes's own works). Here it is, however, presumed that attempts to provide a system of science or sciences in Hobbes always appears somehow constructed.[879] From this a more radical conclusion is made, that Hobbes did not have a method at all in the sense that it is assumed in various modern interpretations.[880] Before moving to a more detailed analysis, three more questions need to be considered: the audience and the structure of *Leviathan* as well as the status of the book among the works of Hobbes.

Hobbes gave three articulations of his political theory, all of which we can assume he intended to make public. Though they all seem to address the same problem, preventing political disorder, all three have special nuances shaped by the situation in which they were written: *The Elements of Law* was written before the Civil War, *De Cive* was a sober reflection of an exile, and *Leviathan* a more vehement articulation of the two earlier works. All three raise the question of audience.

With *Leviathan*, it is my belief that it is addressed to a wide audience, not only to rulers. The obvious evidence is that the work is written in English. The time of the composition and publication and the style of the work also support this view.[881] The audience of *Leviathan* is, however, restricted in a number of ways. Firstly, even it does not belong to the mirror-for-prince genre,[882] it is addressed to those who are involved in politics and in the mid-17th century this group was restricted. Secondly, Hobbes's vernacular and colourful language indicates that the work is primarily written for a British audience and that it has clear political aims.[883] In the light of this, *Leviathan* then

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[877] There are naturally exceptions. See, for instance, McNeilly (1968, 83), who gives some examples of Hobbes's inaccuracies.

[878] Taylor 1965, 35.

[879] For a sober view of Hobbes as a system builder, see Malcolm 1994, xxix.

[880] Compare to McNeilly (1968, 83-84), who proposes that we are not allowed to assume that there is a uniform system of doctrines in Hobbes or that mathematics remained the ideal science. Instead we should start from the fact that there are problems related to this ideal science.

[881] For a discussion that also comments on other contributions to the subject, see Burgess 1990.

[882] Hobbes's hope expressed at the end of Part II of *Leviathan* (XXXI, 193) is better characterised as nugatory or even satirical.

[883] The genesis of the two earlier political treatises seems to defend this. *Elements* was written under similar conditions and also in the vernacular, but *On the Citizen* was originally written in Latin and only translated afterwards.

is not necessarily meant to be a definitive articulation of Hobbes's political ideas. This is, of course, problematic because the theoretical ideas (re-)formulated in the book are subversive and mirror meditations on the elementary structures of politics. Nevertheless, purely in terms of audience, *Leviathan* is fundamentally a political and not a philosophical work, and though it has received a deserved place in the curriculum of Western political thought, this was not likely to be among the primary aims of its author.

It is possible to compare the content of Hobbes's political works and although they appear quite similar, in actual fact they are not. Aside from some subversive ideas on political philosophy, such as the idea of double-impersonality and Hobbes's theory of representation, the material on religion has given *Leviathan* an exceptional status. Whereas Hobbes's two earlier treatises contain a fairly small amount of religious and especially scriptural material, in *Leviathan* Hobbes discusses these extensively. This leads to another problematic issue: the structure of *Leviathan*.

Scholars have addressed the significance of the different parts of the book and their interrelationships in a number of ways. A common view is summarised by Pocock, who says that *Leviathan* is actually two books: a philosophical one (Parts I and II) and a not-so-philosophical one (Parts III and IV).[884] Some Hobbes scholars seem to share this idea. Johnston, for instance, emphasises the fact that there are two worlds in *Leviathan*, scientific and magical. Skinner has suggested that the religious content of Hobbes's philosophy are ironical. Another, rather subtle, exegesis was suggested by Krook, who comments Parts III and IV in the following way:

> But the integral place of Parts III and IV in the argument of Leviathan is, I believe, best understood if one understands two closely connected aspects of Hobbes's 'Christian' thought. These are the peculiar character of his Erastianism, and his thoroughly nominalistic, thoroughly sceptical view of 'interpretation' in general and therefore of Scriptural interpretation in particular.[885]

What Krook also considers essential in this respect is that we should carefully distinguish what is said of religion in Chapter XIII in Part I and what is said in Part III. She goes on to claim that to Hobbes there 'is the Christian Church, not the Christian religion' and summarises her view thus: 'the problem of the relation of State and Church becomes reduced to the single question, Who shall be the interpreter of the Scriptures?'[886] This also seems to speak on behalf of a two-kingdom model of *Leviathan*. On the one hand, there is natural and immanent reality which can be understood by the use of the senses and reason, and, on the other hand, there is a religious, transcendent world, which is incomprehensible, even magical.

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[884] Pocock 1971.

[885] Krook 1953, 221.

[886] *Ibid.*

A sound alternative to the two-kingdom model is given by Oakeshott,[887] who has proposed that Parts I , III and IV are there to support, in a strictly logical sense (that is, to prove or to demonstrate), the doctrine of the commonwealth in Part II. To this can be added that if *Leviathan* demonstrates anything, it is how science is used for political purposes. By this I mean not only Hobbes's overt statements that his work is an attempt to give the true and right principles of governing, but also the undercurrent that runs through the book, namely, the analysis of the misuses of science for political purposes, of which the critique of Scholasticism is the clearest example. Furthermore, Part III is relevant not only to the argument, but also to the argumentation of *Leviathan*.[888] Criticism and interpretation are not oddities of scriptural interpretation, but reflect an aspect of Hobbes's argumentation.

THE UNITY AND THE DISUNITY OF SCIENCE

An element of Hobbes's philosophy seems sometimes to be neglected, namely that it is negative in at least two sense. First Hobbes tries to make a demarcation between things that we can know and those we cannot. This is the starting point of all philosophy; to be wise is to know that one does not know.[889] More concretely, this means that there are a set of issues that we are never able to answer, like, the nature of God or has the world always existed.[890] Consequently, some disciplines like theology are excluded from philosophy. The second negative aspect relates more specifically to civil philosophy. When other parts of philosophy show their usefulness in the results, like navigation, architecture and so on, 'the utility of moral and civil philosophy is to be estimated, not so much by the commodities we have by knowing these sciences, as by the calamities we receive from not knowing them'.[891] Wars, in particular civil wars, are the result of the ignorance of people about the real causes of war. Civil philosophy then has a restrictive and instructive function, but not necessarily a action-guiding and normative role in Hobbes. Though the nature of civil philosophy appears distinctive in the framework introduced, it does not automatically follow that the independence thesis is correct and that the dependence thesis incorrect. Both need to be studied before a further conclusion is given. I shall start from the argument that Hobbes considered science a uniform system.

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[887] Oakeshott, 'Introduction to *Leviathan*', in Oakeshot 1975.

[888] In this respect Sorell's reading (1990b) comes close to my view.

[889] Here Hobbes's note on White's internal conflict is useful. See *Critique du 'De Mundo'* XIV.7, 204-205.

[890] Trying to prove some things about God is both unphilosophical and untheological. See *Critique du 'De Mundo'* XXVI. As already pointed out, trying to characterise God is, at best, to honour him. See *Leviathan* III, 11 and IV, 17; and *Critique du 'De Mundo'* XXXVI.15.

[891] *Concerning Body* I.1.7, 8.

The idea of the unity of science in Hobbes is based on the tenet that science studies the body, which can be of two kinds: natural and artificial. The distinction between the two arises from the way they are generated and what consequences they have.[892] The world of natural bodies is created by God (or at any case, not by human beings), whereas the world of artificial bodies is man-made. A more specific argument is the following: because human beings are a corporeal being, their actions are determined by the same laws of motion as the rest of nature. So-called mental activities are matter in motion and even though we do not completely know the regularities, these motions direct our action causally. Consequently, civil philosophy is also based on mechanistic physics and Hobbes deduces his civil philosophy from his natural philosophy. A short way to articulate this proto-positivism is to characterise Hobbes as a naturalist.[893]

The dependence thesis can be divided into two separate claims: that natural and civil philosophies are the two chief parts of philosophy, and that there is a parallel between them. Secondly, the argument has a strong and a weak version. According to the strong version the mentioned parallel is based on the assumption that both are an investigation of the body. More specifically, the body politic, that is, an artificial body, and its study is a special case of natural body and its study.[894] The weaker version emphasises the methodological unity of sciences. That is to say, all philosophy follows a uniform method.

In the 'Preface to the Reader' of *On the Citizen*, Hobbes explains his method by an analogy:

> As far as my Method is concerned, I decided that the conventional structure of a rhetorical discourse, though clear, would not be suffice by itself. Rather I should begin with a matter of which a commonwealth is made and go on to how it comes into being and the form it takes, and to the first origin of justice. For a thing is best known from its constituents. As in an automatic clock or other fairly complex device, one cannot get to know the function of each part and wheel unless one takes it apart, and examines separately the material, shape and motion of the parts, so in investigating the right of a commonwealth and the duties of its citizens, there is a need, not indeed to take the commonwealth apart, but to view it as taken apart, i.e. to understand correctly what human nature is like, and in what features it is suitable and in what unsuitable to construct a commonwealth, and how men who want to grow together must be connected. Following such a Method I put in first place, as a Principle well known to all men by experience and which everyone admits, that men's natural Disposition is such that if they are

[892] *Concerning Body* I.I.9, 11In (see also IV.25.1, 385-386).

[893] This can mean two things. First, that the constitution and operations of the human mind can be explained only by using sensible, natural qualities or, second, it can refer to what has been called Hobbes's ethical naturalism. A clear presentation of Hobbes's naturalism is given by Zarka (1996, 75-77). On ethical naturalism, see Hampton 1992.

[894] See for example Watkins (1965) Chapters 3 and 4. See also Carter (1999, 86-7) who claims that Hobbes's method of civil philosophy is the amalgamation of Euclid (synthesis) and the School of Padua (analysis).

> not restrained by fear of a common power, they will distrust and fear each other, and each man rightly may, and necessarily will look out for himself from his own resources.[895]

This passage has led to a number of interpretations. Some of them believe that both, a watch and a commonwealth, are studied by resolving them into their constituent parts and then (re)composing. Others, most cogently Sorell, point out, firstly, that the comparison is about a watch and rights and duties, which are different entities and, secondly, that decomposing is not relevant in civil philosophy. Another way to defend the dependence thesis is refer to a passage in *Concerning Body*, where Hobbes explains that in political philosophy one may proceed by synthesis or analysis.[896]

The first issue is about the comparison. Is it a comparison between a watch and a commonwealth or between a watch and rights and duties? The argument that supports the latter is based on the idea that the constituents of a commonwealth are the rights of the sovereign and the duties of the citizen.[897] Yet another argument, based on the text of *De Cive*, points out that if we follow the original Latin text, the comparison is between a watch and a commonwealth (*civitas*).[898] Though it is easy to agree with the latter suggestion, the two views are not mutually exclusive, for both human beings and rights and duties can be considered as the constituents of a commonwealth.

The essential thing to note is that, in general, the comparison operates on the level of science. If the purpose of any science is to study the constitutive causes of an entity, then indeed studying a watch and studying a commonwealth are similar enterprises. The difference is, however, the one explained earlier, that is, if the analysis of causality given in the Chapter V is correct, the constitutive causes in civil philosophy are different from the constitutive causes in natural philosophy (where the philosophical study of watches can be located).[899] In civil philosophy to understand a constitutive cause is 'to understand the intentions of the person who makes it or uses it'.[900] And though the similar line of thought applies to a watchmaker, the intentions of his artefact differ radically from the intentions of the artefact called the commonwealth. In sum, the comparison between a watch and a commonwealth is an analogy that is based on the notion of constitutive cause and on the idea that a whole is understood through its parts. The analogy works up to a point, but when it comes to the difference between the

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[895] *On the Citizen*, 'Preface to the Readers', 10. On historical origins and the use of the watch analogy, see Funkenstein 1986, 317, 323-4. For a discussion how we should understand the relationship between a watch and the commonwealth, see Sorell 1986, 18-21 and Malcolm 2002, 148-151.

[896] *Concerning Body* I.6.7, 73-74. McNeilly (1968, 71-72;76-77; and 86), for instance, takes this as given.

[897] Sorell 1986, 18.

[898] Malcolm 2002, 149.

[899] It can be – though Hobbes does not say this explicitly – located into the '*Science* of ENGINEERS' (*Leviathan* IX, table).

[900] Malcolm 2002, 149.

intentions of the constituents in two artefacts, the analogy breaks down. For though the watchmaker may fail to put together a working watch, the failure is in the maker, not in the artefact, whereas a sovereign does not have same sort of absolute power over the constituents of a commonwealth.

Sorell has claimed that it is a shared interpretative mistake that Hobbes deduced his political and moral philosophy from the truths of physics, and that, instead, he only regards natural philosophy as the first part of his general philosophy and geometry as the first part of natural philosophy.[901] If we believe Sorell, what Hobbes says is that the truths of mechanics are to be deduced *after*, not *from*, those of geometry. And, furthermore, even if Hobbes considered moral philosophy or ethics[902] to be a theory dealing with the motions of the mind, it is not true that he claimed moral philosophy was deducible from physics. The last step, from moral to civil philosophy, is also superficial. Though civil philosophy can be based on experience, it is not necessarily connected to physics and psychology.[903] Understood in this way, the dependence thesis, in both its versions, is not plausible. Hobbes partly bases his civil philosophy on non-natural or acquired human capacities, and these are more important than the natural capacities when we try to understand the nature of politics, the state, political obligation and so on.

It then remains that Hobbes's idea of science is based on the distinction between natural and artificial bodies, which he maintained in an early work on optics:

> The natural sciences differ greatly from the other sciences. In the latter, nothing is needed or admitted as a foundation or primary principle of demonstration other than the definition of terms, by which ambiguity is excluded. They are first truths; every definition is a true and primary proposition because we make it true ourselves by defining it, that is, by agreeing about the meaning of the words. […] But in the explanation of natural phenomena, another kind of procedure must be followed, which is termed Hypothesis or supposition.[904]

This suggests that the independence thesis is the correct reading of Hobbes's method. The thesis claims that Hobbes's civil philosophy is independent of his natural philosophy. A variant of the thesis could be something like the following. The behaviour of man and especially a citizen is not be explained by natural desire, but by the ability to use language and make agreements. This does not, however, necessarily mean that civil philosophy belongs to humanities, nor that Hobbes anticipated a Comtean idea of social physics. The main reason is, almost needless to say, that in the 17th century the division between the humanities and the sciences did not exist. The obvious solution then seems to be that

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[901] Sorell 1986, 5-7.

[902] The term Sorell prefers, because moral philosophy is concerned with the laws of nature

[903] This Hobbes proposes above all in *Concerning Body*, I.6.7, 73-74.

[904] In *The Latin Optical MS*. Quoted in Tuck 1988a, 253. Tuck claims that Hobbes maintained a similar position in 1636 in a letter to Newcastle. For the letter, see *Correspondence* Letter 19, 33-34.

Hobbes had two methods, one for nature, one for society and that these sometimes overlap.[905] In what follows, the reading is reevaluated on the basis of the notion of philosophy that arises from *Leviathan* and is developed in the later works of Hobbes.

Though perhaps the fullest expression of his political doctrine, in terms of his idea of what science is *Leviathan* is confusing. There are two central formulations about science in the work. In Chapter V Hobbes gives the following definition:

> [A] knowledge of all the Consequences of names appertaining to the subject in hand [is what] men call SCIENCE. And whereas Sense and Memory are but Knowledge of Fact, which is a thing past, and irrevocable; *Science* is the knowledge of Consequences, and dependance of one fact upon another: by which, out of that we can presently do, we know how to do something else when we will, or the like, another time: Because when we see how any thing comes about, upon what causes, and by what manner; when the like causes come into our power, wee see how to make it produce the like effects.[906]

And in Chapter VII he writes:

> And therefore, when the Discourse is put into Speech, and begins with the Definitions of Words, and proceeds by Connexion of the same into generall Affirmations, and of these again into Syllogismes; the End or last summe is called the Conclusion; and the thought of the mind by it signified, is that conditionall Knowledge, or Knowledge of the consequence of words, which is commonly called SCIENCE.[907]

These passages outline two conceptions of philosophy and in them two analyses of causality are embedded that were discussed in the chapter on knowledge. Both characterisations of science appear to say the same thing, namely that science is the defining and proper understanding of the conceptions we use. This is true. The cause of obscurity is, however, the first definition, which says that science is also the knowledge of consequences, and the dependence of one *fact*, that is, the state of the world, not the mind as in the latter definition, upon another. This ontological realism could be understood as an echo of Hobbes's supposed earlier scientific ideal, namely that science is about the efficient causes of things, in which there is ultimately only one: matter in motion. In *Leviathan*, Hobbes does not adopt this strictly materialistic theory of science in the same sense as he did earlier. Instead, there seem to be two, if not rivalling, at least differing idea(l)s of science: science as a doctrine of causes and science as a doctrine of definitions. The first doctrine is articulated as follows:

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[905] See Malcolm 2002, 436 and Chapter 5.

[906] *Leviathan* V, 21.

[907] *Leviathan* VII, 48.

> By PHILOSOPHY, is understood *the Knowledge acquired by Reasoning, from the Manner of the Generation of any thing, to the Properties; or from the Properties, to some possible Way of Generation of the same; to the end to bee able to produce, as far as matter, and humane force permit, such Effects as humane life requireth*.[908]

And in *Concerning Body* we find the following definition: '*Philosophy is the knowledge we acquire, by true ratiocination, of appearances, or apparent effects, from the knowledge we have of some possible production or generation of the same; and of such production, as has been or may be, from the knowledge we have of the effects*'.[909] These are articulations of science as a doctrine of causes.

According to some of his writings, to Hobbes, philosophy is concerned with giving proper definitions.[910] This activity has two aspects: natural and artificial. The background idea is that scientific reasoning and explanations should be in accordance with our natural way of understanding things. By this Hobbes means three things: we comprehend things gradually, we relate concepts by comparison ('adding and subtracting'), and, finally, we shape or even create an order to the world by doing this. For example, if we try to understand what man is, we come to the conclusion that accidents, living body and rational define what we take to be man. From this arises the formula: man $=_{def}$ rational, living body, or rational animal. Correspondingly, we can study the notion we already hold. For example, crow = bird and black, and, bird = living, flying, body. This understanding of synthesis and analysis is more in accordance with what Hobbes says about truth, reason and science in *Leviathan*:

> Seeing then that *truth* consisteth in the right ordering of names in our affirmations, a man that seeketh precise *truth*, had need to remember what every name he uses stand for; and to place it accordingly; or else he will find himselfe entangled in words as a bird in lime-twiggs; the more he struggles, the more belimed. And therefore in Geometry, (which is the onely Science that it hath pleased God hitherto to bestow on mankind,) men begin at settling the signification of their words; which settling of significations, they call *Definitions*; and place them in the beginning of their reckoning.[911]

In all its simplicity, Hobbes's idea of scientific reasoning is that we agree upon names that stand for our appearances of things, and proceed by investigating their consequences (synthesis) and causes (analysis).[912] Secondly, synthesis and analysis are applied to the

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[908] *Leviathan* XLVI, 367. Sorell (1986, 55-59) claims that this applies only to natural philosophy.

[909] *Concerning Body* I.6.1. Cf. I.1.2, 3 and 8.

[910] For instance, Raphael (1977, 19-20) emphasises science as a defining activity.

[911] *Leviathan* IV, 15.

[912] For some examples how this happens in practice, see *Critique du 'De Mundo'* XXVII.1-12 (definition) and XXVII.13-17 (synthesis and analysis). For the three conceptions of analysis in Hobbes, see Jesseph's (1999, 231) lists and Johnston's (1986, 142) discussion.

first definitions, which are the basis of all philosophical thinking. The proper aim of synthesis and analysis is to create universal definitions, that is, concepts that describe and explain reality in an extensive, clear and comprehensible way. In short, philosophy is conceptual analysis.[913]

A comprehensive articulation and application of how Hobbes understood scientific reasoning can be found in *Concerning Body*

> *Analysis* is continual reasoning from the definitions of the terms of a proposition we suppose true, and again from the definitions of the terms of those definitions, and so on, till we come to some things known, the composition whereof is the demonstration of the truth or falsity of the first supposition; and this composition or demonstration is that we call *Synthesis*. *Analytica*, therefore, is that art, by which our reason proceeds from something supposed, to principles, that is, to prime propositions, or to such as are known by these, till we have so many known propositions as are sufficient for the demonstration of the truth or falsity of the thing supposed. *Synthetica* is the art itself of demonstration. Synthesis, therefore, and analysis, differ in nothing, but in proceeding forwards or backwards; and *Logistica* comprehends both.[914]

Though Hobbes speaks here especially of synthesis and analysis in geometry, his ideas apply to civil philosophy. In the practice of civil philosophy, analysis and synthesis mean the following:

> [W]*hether such an action be just or unjust*; if that *unjust* be resolved into *fact against law*, and that notion *law* into the *command* of him or them that have *coercive power*; and that *power* be derived from the *wills* of men that constitute such power, to the end they may live in peace, they may at last come to this, that the appetites of men and the passions of their minds are such, that, unless they be restrained by some power, they will always be making war upon one another; which may be known to be so by any man's experience, that will but examine his own mind. And, therefore, from hence he may proceed, by compounding, to the determination of the justice or injustice of any propounded action.[915]

This type of 'conceptual composition and resolution' is at the heart of Hobbes's idea of science. However, definitions in civil philosophy form a case apart. They are not only descriptions, but also evaluations.

Civil philosophy is mainly about defining, but with a component that contains the idea of a struggle over meanings – and as such it is part of public life. To speak in more concrete terms, laws are the basic device to exercise political power and they are supposed to be Hobbes's answer to the threat of competing vocabularies of just and

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[913] For some good examples of conceptual analysis, see *Critique du 'De Mundo'* II.2. The work is also useful in another respect, for here Hobbes continuously criticises White's use of concepts, see for example Chapter VI, article 6.

[914] *Concerning Body* III.20.6, 309-310.

[915] *Concerning Body* I.6.7, 74.

unjust; sovereign power uses the laws of nature and the civil laws that correspond with them and provide the unequivocal language of what is just and unjust. Additionally, science should be the guardian of the public use of language in a commonwealth. It has this privilege for its aim is not private and science does not seek victory but truth. This is the ideal of science in Hobbes, but it is a matter of further reflection to determine to what degree or in what manner he follows this ideal.

The systematic analysis has led us to the same conclusion as the historical analysis, namely that Hobbes's idea of scientific reasoning is manifold and it is doubtful whether there is any point in calling it a method at all – the only justification being, however, that Hobbes himself uses the term. Because both analyses point in the same direction, I will suggest that Hobbes's idea of philosophy is better understood as argumentation than method. The rest of the chapter tries explicates this intuition.

LOGIC AND THE ART OF ARGUMENTATION

There is nothing revolutionary or transgressive in Hobbes's *writings* on method. When put into their proper context, they arise from various intellectual currents. Secondly, his basic idea is rather simple. In his critique of Thomas White's *De Mundo*, this idea is articulated as follows:

> Quid ergo, dicet forte aliquis, non permittetur philosopho inquirere de causâ motus? aut si hoc non est, quid demum est quod philosophiae tanquam opus suum assignabimus? Respondeo 1° ratione naturali concludi neque verum neque falsum quicquam posse, nisi ex supposito, quod nomina & appellationes eo modò accipiantur quatenus à nobis intelliguntur: procedit enim omnis ratiocinatio a constitutis nominum significationibus.[916]

As explained and as the quotation confirms, the basic mode of argument in Hobbes is the rational investigation of concepts, though it should also be pointed out that Hobbes also uses analogues, metaphors and other literary "special effects". These are usually taken to be illustrations of abstract arguments. I propose that they are more, that is, they are important parts of the argumentation. In order to show that my claim is valid, a study of Hobbes's ideas of argumentation is needed. These ideas can be analysed from two viewpoints, theoretical and practical.

[916] *Critique du 'De Mundo'* XXVI.7, 310. Jones's English translation is as follows: 'Perhaps someone will ask: 'What then, will the philosopher not be allowed to investigate the cause of motion?' Or, if this is not the case, 'What is it, then, that we shall assign to philosophy as her proper function?' First, I reply that nothing may be fixed as true or false by natural reason, except on supposition, because terms and names are acceptable only inasfar as we understand them: every reasoning process advances when the meanings of the terms have been [already] settled.' (*Anti-White*, 307).

Hobbes wrote something on formal argumentation and emphasised the role of logic in philosophical thinking.[917] The most coherent and extensive account – but far from perfect – can be found from Part I of *Concerning Body*, which Hobbes describes in the following words: 'In the first part of this section, which is entitled Logic, I set up the light of reason.'[918] Part I has six chapters which are entitled: 'Of Philosophy', 'Of Names', 'Of Proposition', 'Of Syllogism', 'Of Erring and Falsity, and Captions', and 'Of Method'. Chapters II, III, and IV form the core of Hobbes's logic (understood here as the doctrine of formally valid reasoning), the fifth studies shortcomings in the formal argumentation, and the first and the last are more general in nature.

The sequence of chapters two to five is worth noticing in at least two respects. The first is that the sequence shows that Part I of *Concerning Body* has a structure of a logical textbook, and that it bears some resemblance to the scholastic textbooks, and even inherits some details from the Late Medieval developments in logic.[919] In this sense, Hobbes is rather traditional. Secondly, the order of the chapters tells us what Hobbes had already articulated in *Leviathan*, namely that science consists of 'a good and orderly Method in proceeding from the Elements, which are Names, to Assertions made by Conncexion of one of them to another; and so to Syllogismes'.[920] The first part of *Concerning Body* may be understood as a detailed presentation of the above sketch, which has three principal parts: names, propositions, and syllogisms.

Names, discussed in detail in Chapter II, constitute speech, which can be of different kinds. What is of particular interest here is the form of scientific speech, which expresses truth or falsity, and whose basic form is the proposition. A proposition is the combination of two names that can take, according to Hobbes, two equivalent forms:

1) S = P, for example, 'Socrates is a man' or
2) S $\subset$ P, for example, 'Man is a living creature'.[921]

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[917] See, for instance, *On the Citizen* XII.12, 139-140.

[918] *Concerning Body* 'The Author's Epistle to the Reader', xiii.

[919] Of the structure of the logical treatises in 17th century and the Ramist influence in *De Corpore* see (respectively) Nuchelmans 1998, 103-105 and 107. Of the scholastic textbooks in logic see Ebbesen 1982, especially 107-108. Note, however, that Hobbes was familiar with more recent text books, like Herbert Cherbury's *De Veritate*. See Serjeantson 2001, 220 note 27.

[920] *Leviathan* V, 21.

[921] The latter reads: 'Man belongs to the class of living creatures'. In the formulas, S stands for a subject, which Hobbes also calls an antecedent or a contained name, and P for a predicate, a consequent or a containing name. See *Concerning Body* I.3.2-3, 30-3. The identity between S and P in the former is not clear. As I explicate right below, a proposition that S = P refers to a view that, if an S has all the necessary criteria of P, gathered from sensations of all the "Ps", then it is a part of P, but this is an quite obscure view.

Propositions, like names, can be classified in a number of ways[922] of which two will be discussed here. Perhaps the most significant distinction is that between true and false propositions. A true proposition is 'that, whose predicate contains, or comprehends its subject, or whose predicate is the name of every thing, of which the subject is the name'.[923] If a predicate does not contain a subject, a proposition is false. For example, 'the image of a man in a glass, or a ghost, is therefore denied to be a very man, because this proposition, *a ghost is a man*, is not true; for it cannot be denied but that a ghost is a very ghost'.[924]

According to Hobbes, there is a group of propositions that are the principles of demonstrations, that is, something that cannot be proved. These include definitions or the parts of definition (primary propositions), like 'Man is body, animated, rational', axioms, and common notions .[925] The last two are not principles properly speaking for common notions can be false and petitions, like those in geometry, are 'the principles of art or construction, but not of science and demonstration'.[926]

After the classification of propositions, Hobbes analyses the logical structure of proposition.[927] To Hobbes the relationship between the premises and the conclusion of an argument (or a syllogism) is a relationship that explains how from the knowledge in the premises follows the knowledge in the conclusion. The fourth chapter on syllogisms is a clarification of this relationship.[928] The author himself seems to admit that the chapter – on logic in its traditional syllogistic form – is of little use:

> And thus much seems sufficient for the nature of syllogisms; (for the doctrine of moods and figures is clearly delivered by others that have written largely and profitably of the same). Nor

[922] A proposition can be positive, such as 'Man is a living creature', or negative, like 'Lassie is not a man'. Secondly, there are four basic types of propositions: universal ('Every man is a living creature'), particular ('Some men are learned'), indefinite ('Man is a living creature'), and singular ('Socrates is a man'). See *Concerning Body* I.3.4-5, 33-35. Later, Hobbes classifies necessary ('Man is a living creature'), contingent ('Every man is a liar'), categorical ('Every man is a living creature'), hypothetical ('If a thing being a man, the same is also a living creature') and equipollent propositions (for example, the propositions 'Every man is a living creature' and 'Every thing that is not a living creature is not a man' are equipollent). See *Concerning Body* I.3.10-16, 37-41. The third group analyses propositions that are of the same or different quality or quantity. These include subaltern (from 'Every man is a living creature' it follows that 'Some man is a living creature'), contrary (e.g. propositions 'Every man is happy' and 'No man is happy'), subcontrary ('Some man is learned', 'Some man is not learned'), and contradictory ('Every man is a living creature', 'Some man is not a living-creature'). See *Concerning Body* I.3.12, 39-40.

[923] *Concerning Body* I.3.7, 35.

[924] *Concerning Body* I.3.7, 35.

[925] Some evidence can be provided by a letter from Sorbiere, where he writes to Hobbes that philosophers like him and Hobbes should return to ordinary facts. (*Correspondence* Letter 141)

[926] *Concerning Body* I.3.9, 37.

[927] *Concerning Body* I.3.20, 43-4.

[928] First Hobbes makes some technical clarifications and then he goes on to introduce different types of syllogisms.

> are precepts so necessary as practice for the attaining of true ratiocination; and they that study the demonstrations of mathematicians, will sooner learn true logic, than they that spend time in reading the rules of syllogizing which logicians have made; no otherwise than little children learn to go, not by precepts, but by exercising their feet.[929]

Although the fifth chapter discusses error in sensation (a mistake not only in 'in affirming and denying, but also in perception, and in silent cogitation') and ratiocination (a mistake in affirming and denying , that is, 'the falsity of propositions'),[930] it is safe to conclude that Hobbes articulated an Organon, with all its traditional elements, but which he considered only 'the first pace in the way to Philosophy.[931] It is a further question to what extent or in what way he followed the rules of formal reasoning.

There seems to be some evidence that Hobbes maintained a syllogistic way of thinking, if not the syllogistic way of presenting arguments.[932] There are traces of formal argumentation in his texts. In *On the Citizen*, for example, he writes: '*Socrates* is a *man*, and therefore a living creature, is a right reasoning' and is evident.[933] We can take this to mean two things. Firstly, to clarify the reasoning could be taken as correct because it is a valid syllogism, which can be formulated as follows:

> Premise 1: Socrates is a man
> Premise 2: Every man is a living creature
> Conclusion: Therefore, Socrates is a living creature.

However, this is not the reason why Hobbes takes the reasoning to be correct. He continues:

> [The reasoning is correct and evident] since all that one needs, to recognise the truth of the conclusion, is to understand the word *man*, because *animal* is in the definition of *man*; and everyone supplies the missing proposition, man is *an animal*.[934]

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[929] *Concerning Body* I.4.13, 54-5.

[930] *Concerning Body* I.5.1, 55 and 57.

[931] *Concerning Body* I.4.13, 54-5.

[932] This naturally depends what we mean by 'syllogism' and related terms like syllogize. If we use the term to refer to reasoning in general and drawing conclusion for certain premises, Hobbes surely maintained a syllogistic way of thinking, but then who would not. If we, however, use the term in a more specific way of studying and teaching the logic as this was done in the Medieval curriculum, Hobbes himself seems to contract of – perhaps most vehemently in *Verse Life* (255), where he satirizes the syllogistic way logic was taught in Oxford when he studied there.

[933] *On the Citizen* IX.1, 107-108.

[934] *On the Citizen* IX.1, 107.

It, simply, follows from the definition of man that he is a living creature. Similarly it also follows from the definition of man that he is, for example, rational. This, of course, does not apply to all definitions. The quoted passage goes on:

> *Sophroniscus is the father of Socrates, therefore also his Master* [Dominus] is also perhaps a valid inference, but not totally evident, because *Master* is not in the definition of *father*. To make it evident, one needs to explicate the relation between *father* and *Master*.[935]

The relationship between the names 'father' and 'master' is accidental, and therefore does not fulfil the two central criteria of Hobbes's concept of definition, namely that scientific definitions are universal, real definitions. As Hobbes explains in the appendix of the Latin *Leviathan*: 'The essence of concrete being, say of a white being, is the name of the white itself, but considered insofar as it is white'.[936] In the light of the above, Hobbes's argumentation is not so much about giving formally valid syllogisms, but of formulating definitions and testing them against our knowledge of the world. How his philosophical practice seems to support this intuition, is the next topic.

The second way to clarify Hobbes's idea of valid philosophical reasoning is to study the texts themselves. The majority of arguments in Hobbes's writing start with a definition of a certain phenomenon and then go on to analyse what follows from this definition. Understood like this what we have is conceptual analysis, which includes logic and the study of our linguistic practice as it is at present, not merely in the philosophy books, but also in common parlance.

A rather typical example of Hobbes's argumentation is Chapter X of *Leviathan* ('O*f* Power, Worth, Dignity, Honour, and Worthiness'). The chapter begins with a short definition of power: 'The POWER *of a Man*, (to take it Universally,) is his present means, to obtain some future apparent Good. And is either *Originall* or *Instrumentall*.' This basic definition is followed by a number of qualifications. First we learn that original power means the natural powers of men, like strength, prudence, and eloquence. By instrumental power Hobbes understands power that is acquired with natural powers, like 'Riches, Reputation, Friends, and the secret working of God, which men call Good Luck'. The nature of power is like 'Fame, increasing as it proceeds', or 'like the motion of heavy bodies, which the further they go, make still the more haste'. Lastly, Hobbes emphasises that the greatest power is that of a commonwealth, that is, one in 'which is compounded of the powers of most men, united by consent, in one person, natural, or civil, that has the use of all their powers depending on his will'.[937] In short, power is to

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[935] *On the Citizen*, IX.1, 107. Cf. *De Cive* IX.1, 164.

[936] *Appendix to Leviathan*, 515. The English translation is a little bit turgid, but I interpret it to mean that the essence of a thing is signified by its name, but only in so far as this name corresponds with our perception of the thing. See also the original Latin text in *EW*, vol. III, 532.

[937] All quotations from *Leviathan* X, 41.

Hobbes a mean or a device to attain a certain kind of end ('some future apparent Good'), which, as Hobbes explains earlier in chapter six, is a consequence where there seems to be more (subjective) good than evil.[938] The definition of power is followed by Hobbes's study of what kinds of things can be thought of as power, that is, what follows from his definition of power. For example, popularity and nobility are power, whereas (pure) sciences are only small power.

We may now ask: Is this an argument? The answer being yes and no. It is not in the sense that though there is a definition, the explanatory part of the argument seems to be a recommendation of how we should understand a certain word and what falls under its extension. But, again, it is an argument in the sense that it gives all the adequate knowledge concerning the phenomenon of power, namely the knowledge of fact (a definition) and the knowledge of consequences (what follows from the definition).

Secondly, though things Hobbes says about power do make sense and sound plausible, what seems to be lacking is an explanation of the causes of power. Hobbes only seems to answer the question, 'what is power?', not the question. 'Why is power as he describes it to be?' This is not, however, quite correct. To be precise, Hobbes names two causes of power. The first is our natural capacity (physical and mental powers), like strength, and the second is the power acquired by pact (social or political power).

Power is not the only subject of Chapter X of *Leviathan*. It also discusses conceptions which in one way or another are close to power, such as worth (the comparative value of a man to society), dignity (or public worth), honour, and worthiness (the fitness or aptitude of a man for an office). All receive their exact definitions and a list of what kinds of things or acts fall under them. However, Hobbes devotes most space to an analysis of honour.

The analysis of natural honour follows the basic procedure described above, but when Hobbes moves to the analysis of honour in civil society there is a departure. Thus, the discussion on honour extends to the history of '[s]cutchions, and Coats of Armes haereditary [and] Titles of *Honour*, such as are Duke, Count, Marquis, and Baron'.[939] From this miniature history Hobbes turns to the actual theme of the chapter, which is the doctrine of private and public evaluation so important to his theory of the state as a neutral agent. If we leave natural equality aside (that is, mutual respect for each other as natural equals), Hobbes in this chapter seems to suggest that we should not value each other on the basis of superficial qualities, like honorary titles, but only on the basis of what a person is able to do. Here he qualifies something claimed earlier in the chapter. The known formula that '[t]he *Value*, or WORTH of a man, is as of all other things, his Price'[940] introduces an instrumental view of man, but worthiness (understood as fitness,

[938] *Leviathan* VI, 29.

[939] *Leviathan* X, 45 and 46.

[940] *Leviathan* X, 42.

that is, a suitability for a specific task), Hobbes underlines, should be distinguished from worth. The further explication that merit may override worthiness seems to support this more balanced reading of Hobbes's doctrine of mutual respect based on the fact that we are naturally equal.

Lastly, the way Hobbes structures his argument chapter exemplifies detours or side-tracks that are not uncommon in *Leviathan*. Some of them, like the characterisation of a man's life as 'solitary, poore, nasty, brutish, and short'[941] are amplifications, but some of them, I propose, are more than that.

CONCLUSION: EXPLANATION AND HOBBES'S ARGUMENTATIVE PLURALISM

In Hobbes's philosophy there is a difference between the merely stylistic and more substantive textual strategies. Some of Hobbes's extra-rational argumentation is verbal acrobatics but some not. For example, when he says that 'words are wise men's counters […] but […] the money of fools',[942] this does not add anything decisive to his idea that truth consists of right definitions of names, whereas the argument about the natural origins of religion would not be as effective without the illustration of what – the crocodile, the leak, and fever, to name but a few men have worshipped throughout the ages.[943] To distinguish between the two is not always easy, but hopefully the analysis below will be of some use.

There are a number of literary strategies in Hobbes's texts. The core idea here is to show that Hobbes' way of doing philosophy is itself an example of imagination. By this, it should be added, it is referred to the more general meaning of term. That is say, Hobbes's philosophy is inventive and he uses various ways to exemplify his arguments. The strategies are distinction, persuasion, referring to authority, genealogical argumentation, and, most typically, illustration.[944]

An example of distinction is Chapter VI in *Leviathan*, which concerns passions. The chapter begins by distinguishing between vital motion, like breathing and the circulation of blood, and voluntary motion, which are 'first fancied in our minds', say, drinking a glass of sherry, and introducing the concept of endeavour, or 'small beginnings of Motion, within the body of Man, before they appear in walking, speaking, striking, and other visible actions'.[945] After this Hobbes gives a rather extensive

[941] *Leviathan* XIII, 62.

[942] *Leviathan* IV, 15. 'But' is here conjunctive not disjunctive.

[943] For a full list and the detailed argument, see *Leviathan* XII, 53-57.

[944] It needs to be emphasised that the list introduced here is a reconstruction and I do not claim that these are the only strategies Hobbes uses.

[945] *Leviathan* VI, 23.

classification of different passions. Starting from two basic motions, appetite and aversion, Hobbes goes on to add a number of organising criteria, like does the motion direct one towards or away from an object, and to introduce the basic passions of appetite, desire, love, aversion, hate, joy, and grief on which are based the rest of the motions of the mind, like hope, diffidence, pusillanimity, curiosity, panic, and many more. Finally, Hobbes analyses different ways of expressing the passions, for example praise is the appropriate form to express the goodness of a thing.[946]

Another way of using distinction is by referring to the classical terminology of philosophy. An example of this is Hobbes's analysis of good and evil. There are three kinds of good and evil: good and evil in promise, good and evil in effect (or substantive good), and good and evil as a means (or instrumental good). Unfortunately the English of his age did not have the required delicacy to distinguish clearly between these, and therefore Hobbes turns to Latin where the listed goods and evils are called (respectively): *pulchrum* and *turpe*, *jucundum* and *molestum*, and *utile* and *inutile*. In short, the classical terms are not there only to indicate Hobbes's linguistic profiency, but are an integral part of the explanation or explication of his ideas.

The second explanation that Hobbes uses is persuasion. Now and then Hobbes uses analogies, metaphors, and tropes to strengthen his claims, but in a way that if a persuasion is dropped, the argument will lose some of its force. It is an ongoing discussion whether or not persuasion should be understood as something more than rhetoric, but it cannot be denied that some of the force and finesse of *Leviathan* rests on persuasive argumentation. Naturally the most brilliant analogy of Hobbes is that of Leviathan[947], but many others exists.

A stimulating example of persuasion is the argument against papacy, which uses the analogy to kingdom of fairies.[948] The analogy is located into the last chapter of *Leviathan* in which Hobbes seeks to show how the ecclesiastics had benefited by their manipulation of religion. He lists over ten different ways by which the clergy have acquired, maintained, and raised their power over people and their lawful rulers. For example, 'the teaching that Matrimony is a Sacrament, giveth to the Clergy the Judging of the lawfulnesse of Marriages; and thereby, of what Children are Legitimate; and consequently, of the Right of Succession to hereditary Kingdoms.'[949] This historico-

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[946] *Leviathan* VI, p. 46.

[947] The analogy was discussed in the introduction. The textual analogy can be found in *Leviathan*, 'Introduction' and has been cited so many times that I won't repeat it here. For an interesting, but somewhat conjectural, analysis of Hobbes's decision concerning the title of his *magnum opus*, see Stillman 1995.

[948] See *Leviathan* XLVII, 386-387. The kingdom of fairies appears shortly also in the Chapters XII and XXIX of *Leviathan*.

[949] *Leviathan* XLVII , 383.

critical analysis is followed by the analogy where it is pointed out, among other things, that like fairies ecclesiastics sneak about in the dark and speak the language of death.

The third explanation is based on authority.[950] Sometimes Hobbes appears to be one of the dogmatists, whom he generally despises.[951] This is a qualified claim for occasionally Hobbes seems to use authorities for strategic support. This is, for example, the case at the end of Part II of *Leviathan*, where he compares his task to that of Plato.[952] The case is slightly different with proponents of the new science like Galileo and Harvey. Hobbes shows them the appropriate formal admiration,[953] but there are also passages that paraphrase, critique, and develop their ideas. The second chapter of *Leviathan*, for example, begins by summarising some of the key ideas of Galileo:

> That when a thing lies still, unlesse somewhat els stir it, it will lye still for ever, is a truth that no man doubts of. But that when a thing is in motion, it will eternally be in motion, unless somewhat els stay it, though the reason be the same, (namely, that nothing can change it selfe,) is not so easily assented to. […And that]
> When a Body is once in motion, it moveth (unless something els hinder it) eternally; and whatsoever hindreth it, cannot in an instant, but in time, and by degrees quite extinguish it.[954]

Hobbes is not here only criticising Aristotelian physics or showing that he is aware of the latest discoveries of science, but is primarily introducing a basic idea of his psychology (that mental functions obey the laws of motion), which he seeks to justify by an allusion to Galileo and his authority.

The fourth kind of explanation is genealogy. Basically this means the analysis of a conception and the meaning of words with certain special techniques.[955] There are at least two types of genealogies, etymologies and genealogies of the terms of Bible, which both share the idea of restoring a forgotten original meaning of a word or a conception. Here Hobbes's debt to the critical linguistic analysis revived in the Renaissance is evident.

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[950] This kind of argumentation is clearly evident in *Thucydides*, where some parts of the discussion simply list what others have said.

[951] *Leviathan* XLVI, 367-368. For the distinction between *mathematici* and *dogmatici*, see *Elements* I.13.4, 75.

[952] *Leviathan* XXXI, 193. A similar identification with Galileo can be found from *Considerations upon the Reputation, Loyalty, Manners and Religion of Thomas Hobbes*, (in *EW*, IV, 432). For a recent discussion of Galileo's influence on Hobbes, see Jesseph (2004), who claims that the Galilean influence appeared after a period of delay, that is to say, though Hobbes became familiar with the ideas of Galileo already in the 1630s, the actual influence came in the next decade in Paris.

[953] For example, *Concerning Body*, 'The Author's Epistle Dedicatory', viii. In particular Hobbes seems to lean on the authority of Galileo. He uses such expressions as 'is well proved by Galileo' (*Elements* VIII.2, 47), 'as hath been demonstrated by Galileo' (*Seven Philosophical Problems*, 9 and *Decameron Physiologicum*, 148) without explaining the ideas.

[954] *Leviathan* II, 4.

[955] On this, see also Skinner 1996, 310-311

Etymologies are quite common in Hobbes's works,[956] but we need to distinguish between their merely referential use and their substantive use. An example of the first kind of etymology is in Chapter II of *Leviathan*, where Hobbes explains what he means by imagination. He refers to the Greek and Latin predecessors of the concept.[957] A more substantive way of using etymology is the way in which Hobbes uses the term 'conscience'. In *Leviathan*, he writes: 'When two, or more men, know of one and the same fact, they are said to be CONSCIOUS of it one to another; which is as much as to know it together.'[958] A border case can be found in *Concerning Body*, where Hobbes explains that by ratiocination he does not simply mean reckoning (and even less, reckoning by numbers), but something closer to the original Greek idea as it is present in the pair of terms *logizomai/syllogizomai*, which refers to reasoning understood as bringing all the relevant facts together and presenting them in a comprehensible form.[959]

The second genealogical explanation is the meaning of scriptural terms.[960] Hobbes Biblical criticism serves two functions: political and theological. The political function attempts to show that the fundamental tenets of Christian faith are in accordance with his political theory, whereas the theological function seeks to show that there is no relationship between the nature of God and the nature of the world. Explanation as a technique is found above all in chapters XXXIV to XXXIX of *Leviathan*, where Hobbes analyses such key Biblical concepts as 'spirit', 'hell', 'holy', and 'church'. This kind of explanation bears a resemblance to etymological analysis, for in both there is a basic Renaissance tendency to restore the original meanings of concepts that were corrupted (due to the works of the scholastics). The basic procedure in this kind of explanation is to pick a term and then find passages in the Bible where it is discussed and give a philological and sober analysis of these terms. For example, 'church' (Lat. *Ecclesia*, though the English word comes from the Greek *Kyriake*) has three principal meanings in the scriptures. The first is the place where men gather to worship God, a temple. The second is a particular assembly of citizens, or congregation. Hobbes only takes the third to be the proper meaning. This is when the church refers to the community of all Christians, no matter where they lived, who take Christ to be the head of this universal congregation. The church is then:

> *A company of men professing Christian Religion, united in the person of one Soveraign; at whose command they ought to assemble, and without whose authority they ought not to assemble.* And because in all Common-wealths, that Assembly, which is without warrant from

[957] To be precise, Hobbes does not use the Greek word here, but the English equivalent, fancy. The Greek term is, however, mentioned in the corresponding discussion in *Concerning Body* IV.25.7, 396.

[958] *Leviathan* VII, 31.

[959] *Concerning Body* I.I.3, 5.

[960] For an extensive discussion of Hobbes's Biblical criticism, see Malcolm 2002, Chapter 12.

> the Civil Soveraign, is unlawful; that Church also, which is assembled in any Common-wealth, that hath forbidden them to assemble, is an unlawful Assembly.[961]

Hobbes's aim is not an ecumenical one. For as no global sovereign exists, every Christian should obey his own sovereign. The conclusion is the same as it is in Parts I and II of *Leviathan*: men must obey they sovereigns, but the style of argumentation is different.

To conclude, Hobbes adopted different stylistic solutions in *Leviathan* and also in some of his post-*Leviathan* works (like the use of Renaissance dialogue), which are already a sign of change, but these solutions do not necessarily relate to his changing conception of argumentation. Nevertheless, it appears plausible to say that it is not possible to harness philosophy to a single method. Philosophy has always used various techniques to illustrate arguments. In particular, civil philosophy, which is the hardest of all the arts to master.[962]

[961] *Leviathan* XXXIX, 248.

[962] It is even more difficult than geometry. See *Leviathan* XXX, 184.

VIII EPILOGUE

This epilogue offers two sorts of conclusions, systematic and historical, or internal and external – though I shall follow the order that has become customary during the course of the thesis, that is, I shall start with the historical and then proceed to the systematic conclusions. Both kinds of conclusions try to demonstrate that Hobbes's philosophy, both when it comes to its contents and form, is more diverse than the standard readings claim. Internal conclusions deal with the claim that Hobbes's philosophy is best understood through his conception of imagination. In order to show this, a summary view of different conceptions or aspects of imagination in Hobbes will be given.

External conclusions can be reflected in relation to Kant's though.[963] As said in the historical introduction, Kant is sometimes taken to be the turning point in the history of imagination. His architectonic philosophy included an analysis of imagination that established a strain in aesthetics and criticism, and which expanded in the treatment of Romantic thinkers into a full philosophical programme. From a philosophical point of view, the modern history of imagination has received relatively little attention. Though some studies exist, a comprehensive and critical one is still missing. The work in hand is unable to fulfil such a massive task, but it will provide some remarks based on the case of Hobbes and imagination.

A standard reading says that Kant systematised the tripartite distinction of imagination into the reproductive, productive, and creative imagination, but that this division had its historical roots in 17th-century and 18th-century thinkers.[964] Secondly, the standard reading emphasises that the creative imagination, a term used already the 1730s, matured '[w]ith a few exceptions, mostly in German philosophical writing'.[965] The third central claim is that the idea of the creative imagination developed out of pondering on the nature of taste and, more broadly, art and literature. My first remark relates to this last claim.

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[963] The relationship between Hobbes and Kant has interested scholars at least since the1930s, when Taylor introduced his reading of Hobbes's moral philosophy. This idea was developed further by Howard Warrender and goes in the secondary literature under the name of Taylor Warrender -thesis. The discussion is extensively documented in Brown 1965. For a recent study on the relationship between Hobbes and Kant, see Williams 2003.

Kant himself comments on Hobbes in a number of places. In *Critique of Pure Reason* (A 752 / B 780) Kant utilises some of Hobbes's key notions, above all, state of nature, but more well known is the attack in the essay 'On the common saying "This may be True in Theory, but it does not Apply in Practice"', subtitled 'Against Hobbes'. (See also Reiss 1991 and, especially, Airaksinen and Siitonen 2004, 326-327).

[964] Here I follow by and large the excellent pioneering work of James Engel (1981).

[965] Engel 1981, vii.

In the chapter on art and style one of the ideas was to demonstrate how Hobbes's theory of literature was based on reproductive and productive imagination. Arts, like poetry and history, could at their best give general insights formulated in a delicate way, but never compete with genuine philosophical knowledge. Such knowledge, I argued, is based on creative imagination understood as a capacity that brings something completely new into the world and which is best exemplified in Hobbes's political ideas, and has, at least, a loose point of contact with the tradition of the maker's knowledge and especially the mathematical branch of this tradition. The standard reading of the modern history of imagination, while concentrating on poetic imagination, then fails to appreciate the epistemic imagination and its creative function.

The second, more systematical remark I wish to make relates to the development of creative imagination after Kant. Here the claim is that Romantics, such as Coleridge and Wordsworth, developed further the Kantian idea of creative imagination and gave it a special inspirational and practical flavour. Imagination represents the poetical God-given genius, but was equally 'viewed as a cosmic power, responsible for bringing forth and organising the unity of all creation and for implanting the divine in man'.[966] In the hands of the Romantics, it has been claimed, humankind moved from the age of reason 'into an age of what Wordsworth defines as the age of imagination, that is, "reason in her most exalted mood"'.[967] In the Romantic conception of imagination, the psychological, the epistemological, the aesthetic, and the mantic imagination combine together and form an all-pervading force of the human mind.

My aim here is not so much to deny the plausibility of the standard reading as in complementing it. It may well be that the origins of the Enlightenment and the Romantic conceptions of imagination are in the discussions on the nature of art and taste in the latter half of the 18th century, especially as the idea of the creative power of the aesthetic imagination as creative does not appear before the Romantics. But to this genealogy should be added the fact that the 17th century ideas on human nature, knowledge, and art may well contribute to an understanding of the modern history of imagination.[968] What has been the historical claim here is that Hobbes's theory of imagination in general and his theory of knowledge in particular may be significant steps in this development, and that the modern history of imagination, instead of being understood as a triumph of aesthetic *genius*, is a more complicated story of the ways in which the mind, the word, and the world interact. The thesis ends with a Hobbesian version of this.[969]

In Hobbes's philosophy imagination is perhaps best understood as a theoretical concept, which brings together different mental states and capacities of the mind. As

[966] Engel 1981, viii.

[967] Engel 1981, ix.

[968] For an attempt to understand the relationship between the Early Modern period and Enlightenment in less traditional terms, see Losonsky 2001.

[969] Hobbes summarises some of his basic ideas of imagination in *Leviathan* XLV, 358-359.

such it may appear vague, but I hope that the preceding analyses have brought some clarity and distinctiveness to this admittedly broad theme in Hobbes's philosophy. It is true that Hobbes's terminology is not always consistent. It is easy to distinguish between, say, dream and memory, but not between imagination and fancy, or phantasm. However, if two criteria are kept in mind, imagination as a general term makes sense. The first is that imagination is an appearance, and the second that for a conception of the mind to qualify as imagination its object must not be directly present to a subject.[970]

The second conception is imagination as a specific psychological capacity. The idea is that imagination is the natural capacity that picks up from the mind different conceptions, which it can combine in a way that transcends past and present. It is not so much the analysis of imagination, but the analysis of a train of imaginations that counts here. From this analysis arises the pre- and semi-scientific thinking based on experience, fancy, and judgement.

The third conception could be labelled aesthetic. I have argued that the aesthetic or poetic imagination should be kept apart from Hobbes's philosophical argumentation and in particular from his civil philosophy. Though in both language plays a central role, there are two things that separate them. The first is that poetry and other arts work on particular facts and the second is the different role of language in the arts (poetry, history, and rhetoric) and in philosophy. In the arts, the role of language is the excitement of passions, while in the latter it is the clarification of our conceptions.

The next concept of imagination has to do with knowledge and it has some resemblance to the second meaning of imagination. It is here where my reading of the significance of imagination to Hobbes differs from what could be called the humanist reading. I agree that in *Leviathan* Hobbes tries to bring together the methods of science and the techniques of Renaissance humanism, and this manner of writing philosophy is one of his enduring legacies. However, I disagree that the statement 'how can fancy hope to collaborate with reason to create a persuasive civil science' is the essence of Hobbes's late (civil) philosophy of Hobbes or that in *Leviathan*'s 'theory of imagination. Hobbes returns in a wide circle to the humanist allegiances of his youth'.[971]

To Hobbes, philosophy and science is to have (and sometimes also to generate) the correct (real) definitions. Here understanding (a form of imagination) and, consequently, signs and language are important. Secondly, the analysis of regulated train of thought and the generated causality point to the form of thinking which is not determined by the previous sensation but genuinely creative. Further on, my argument is not merely that thinking of any possible consequence refers to curiosity so typical to

[970] The latter criterion needs an explication. An object is present only when it is actually there and has a direct effect on our senses. Therefore, the reflection of the sun on the water or an echo are imaginations. For a clear formulation of this, see *Leviathan* XLV, 358.

[971] Where I am in agreement, see Skinner 1996, 437, and where I disagree, see 367 and 372 .

human beings, but to a more specific technique of making hypothesis.[972] The role curiosity in Hobbes's account of invention has been noted by scholars, and indeed Hobbes himself speaks of curiosity in this context. I naturally do not seek to deny the role of curiosity, but develop the argument by emphasising that the other element in this sort of regulated discourse of the mind, design, is of at least equal importance as desire. Curiosity is the motivational component of knowledge, whereas imagination is its cognitive component. As Hobbes writes in *Elements*:

> The contrary [of dulness] hereunto, is that quick ranging of mind described chap. IV sect. 3, which is joined with curiosity of comparing things that come into his mind one with another. In which comparison, a man delighted himself either finding unexpected similitude in things, otherwise much unlike, in which men place the excellency of FANCY: and from thence proceed those grateful similes, metaphors, and other tropes, by which orators have it in their power to make things please or displease, and shew well or ill to others, as they like themselves; or else discerning suddenly dissimilitude in things that otherwise appear the same. And this virtue of the mind is that by which men attain to exact and perfect knowledge.[973]

Hobbes's reference to poetry and oratory should not mislead us, and when he in *Leviathan* rearticulates the above idea and defines the second type of regulated train of thoughts as 'imagining any thing whatsoever, wee seek all the possible effects, that can by it be produced',[974] this is to be taken quite literally as the elementary idea of scientific discovery. That is to say, we make various hypotheses about a phenomenon and then try to verify them . The most successful hypothesis is the one that best explains the phenomenon. The difference between natural philosophy and demonstrative sciences (geometry and civil philosophy) is in the degree of certainty that they are able to provide. Because the objects of geometry and civil philosophy are of our making, our knowledge of them is also more certain and perfect than that concerning natural bodies, though it does not follow from this that natural philosophy is a mere collection of facts; it is a collection of more or less reliable generalisations.

Understood in this way imagination creates something completely new in terms of knowledge. And as explained it was in the later writings of Hobbes (including perhaps *Leviathan* at the level of practice, though it does not contain a clear theoretical formulation of this new notion of knowledge) where this idea of the artificial production of knowledge finds the best articulation. It needs to be emphasised, however, that this theory of knowledge forms only a part of what can be taken to be revolutionary in Hobbes's political philosophy. The application of the ideas of classical mathematics to civil philosophy and the theory of knowledge that grows out of this reflection are his

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[972] See *Leviathan* III, 10. Readings that emphasise curiosity include Bunce 2003 and Losonsky 2001. Also James (1997) has emphasised the role of curiosity in seventeenth-century philosophy.

[973] *Elements* X.4, 61.

[974] *Leviathan* III, 9.

contribution to the rational study of politics. But equally important is the role of imagination in his analysis of the irrational dimension of politics, which leads to the conception of mantic imagination. When evaluating this, we need to articulate what problem *Leviathan* answers.

This was the problem that politics poses to philosophy and which is present above all in language. The linguistic genius of Hobbes, as found in *Leviathan,* is a lively example of how one might try to handle the language of politics. But the problem of politics is not merely the abuse or misuse of language but the nature of language itself.[975] To put the claim strongly, rhetoric and its alleged dangerous nature are the tip of the iceberg. Rhetoric is an art that can be learned and utilised, even against the art itself. *Leviathan* is an example, but Hobbes's verbal genius and his conception of language are more than a learned exercise of *ars rhetorica* and *Leviathan* something more than 'a belated but magnificent contribution to the Renaissance art of eloquence'.[976] Additionally, as I have argued, the analysis of eloquence should be seen as related to the actual practice of politics. The use of figurative language is an integral part of politics and this is a matter that needs to be taking into account in the philosophical study of politics.

In a philosophical climate which is still very much influenced by (the late) Wittgenstein, it is not a novelty to adopt a view that Hobbes's philosophical project is one that tries to understand what language is. My aim has been narrower and, perhaps, more traditional, for I have investigated various mechanisms of language that are present in Hobbes's philosophy. Therefore, I do not offer a theory of language as such, but a view of language as it may be understood through Hobbes's writings. And in this respect, if there is a point of reference, it is Thucydides rather than Wittgenstein.

From the beginning of the 1980s there has been emphasis on the linguistic and rhetorical dimension of Hobbes's thought. Secondary literature concentrating on this line of reading deals with an important dimension of Hobbes's thinking. To characterise recent Hobbes scholarship, we may adopt two ideas, namely those of the linguistic and the rhetorical turn.[977] The first notion refers, here, to the idea that Hobbes's philosophical project is an endeavour to understand the nature of language and, furthermore, its role in philosophical thinking and political life. The latter expression emphasises the rhetorical elements in Hobbes, indicating that his work can be analysed, as the general tendency could be characterised, from the rhetorical point of view, or, as

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[975] As indicated earlier, the view is not novel. Thucydides, Hobbes's early interest, proposed that there is a nexus between the collapse or mess of public vocabulary and political order. (See *The History of the Peloponnesian War*, Book 3, paragraphs 82-84.) A contemporary of Thucydides, Isocrates (436–338), gave a similar argument (For sympathetic view of Isocrates, see Vickers 1988, 158).

[976] Skinner 1996, 4.

[977] Hobbes's linguistic genius and his enigmatic style has been always recognised. Among the recent studies, I have found the following works helpful: Whelan 1981; Ball 1985; Johnston 1986; and Skinner 1996. For expressions the linguistic turn and the rhetorical turn, see Rortry 1967 and Simons 1990, vii.

the more qualified argument goes, that his thinking should be set into the context and tradition of *ars rhetorica*.[978] My work can be seen as both: in part following these lines of interpretation, but also acting as a critical commentary upon them.

We may adopt the Greek word *pharmakon* to characterise Hobbes's idea of the functioning of language.[979] *Pharmakon* can mean both cure and poison. Whether it is a poison or a cure depends on the use. Too much botulin will kill, but the proper amount can be useful. In the same manner, language can be a cure or make one ill; it constitutes reasoning, even thinking, but always contains the possibility of misleading. For instance in *On the Citizen*, Hobbes writes:

> [H]owever well the animals may be able to use their voices to indicate their feelings to each other, they still do not have the art of words that is needed to arouse the passions, notably, to make the Good appear Better, and Bad Worse than they really are. But man's tongue is a trumpet to war and sedition.[980]

It is then plausible to repeat the platitudes that language is what makes man human and that at the same time it is a dangerous ability. Hobbes's philosophical project is an attempt to try to understand this aspect of human life. Hobbes's solution, however, has its foundation in his naturalistic analysis of the human mind and the world; '[t]here is no other acts of mans mind, that I can remember, naturally planted to him, so, as to need no other thing, to the exercise of it, but to be born a man, and live with the use of his five Senses'.[981] As its concrete counter part, the great Leviathan, the great *Leviathan* is indeed the 'deception of sense, which also is by sense to be corrected.'[982] It is not definitions but real definitions that matter to Hobbes.

The connection between psychological and political theory is not neglected in other works by Hobbes, but the link between the philosophical and the political is clearest in *Leviathan*.[983] In terms of imagination, the basic idea is as follows. A form of imagination, vision is not only the description of a perversity of mind, but serves also as

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[978] For more general views, see Johnston 1986, Prokhovnik 1991, and Condren 1991; for a specific view, see Skinner 1996.

[979] The idea is present in his division into the uses and abuses of language and in man's privilege to be absurd (see *Leviathan* V, 20). For a discussion, see Prokhovnik 1991, 122-127.

[980] *On the Citizen* V.5, 71.Cf. *Leviathan* XVII, 86-87.

[981] *Leviathan* III, 11. Cf. *Leviathan* I.II, 8.

[982] *Elements* II.10, 26.

[983] In *Elements* discussion is scattered and not as extensive as it is in *Leviathan*. For example, vision is used mainly to refer to visual perception. See *Elements* III.5, 29; I.X.9, 63; XI. *De Corpore*, *De Homine*, and *De Cive* should be read together, but even so, in *De Corpore* the discussion is limited mainly to dreams, though Hobbes mentions men who, even when awake, have dreams of ghosts and incorporeal substances, i.e. visions. See *De Corpore* IV.25.9. In *De Homine* and *De Cive* the practical implications of psychology are largely neglected and the questions of religion and faith are discussed from the institutional point of view.

aetiology of (religious) fanaticism. Related to visions are the doctrine of private judgement, pretence of inspiration, prophecy (true and false) and the word of God. In other words, certain imaginations, especially, religiously motivated, which amplify private judgement and prophecy, are clearly politically dangerous, for they provoke fanaticism and sectarianism.[984]

Hobbes's analysis of language is tied to the relationship between normative language and political order. The 16th century had showed to Europe that probably the greatest danger to political stability was religious enthusiasm. When moving to the 17th century, the sphere of good and evil was still to a large extent determined by religion. Perhaps the clearest articulation of this can be found from the 1668 Latin edition of *Leviathan*, where Hobbes writes: 'these [disorders and civil wars] are most often generated by differences of doctrine and intellectual wrangling, there must be some restraint, in the form of punishment, on those who teach, in books or sermons, things whose teaching the laws of the prince or republic prohibit'.[985]

Hobbes rephrases what was commonly known, but behind this is another line of thought, namely that people are normatively thirsty, eager to condemn others and praise themselves. This is the basis of the irrational aspect of politics and also Hobbes's modernity for his work can be taken to be among the first attempts to analyse ideology, a very familiar phenomenon in modern politics.[986]

The language of religion and of morals is passionate and often overrides the language of reason, toleration, and temper. The problem of politics, re-articulated in more psychological terms, is that men are prone to make judgements about each other in normative terms and because we are vainglorious creatures that seek nothing but 'power, *honour*, and riches' the result is the perpetual fight over pride and dignity.[987] We crave for good and bad, and when the idea of the right to maintain subjective, private moral principles is combined with this, social harmony is threatened.

But yet another question arises: Why is the language of religion a threat to the public order? An initial answer could be that because religion is – or at least was – the only area of human life that goes beyond this life. Even Hobbes seems to admit this, or how else can it be explained that he reserves so much space and effort to the analysis of religion in his major work. It is true that he holds that there is no other government in this world but the temporal and there is no power greater than the earthly governments,[988] but though as fully rational creatures we ought to think as Hobbes does,

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[984] A helpful analysis of the mantic aspect of imagination can be found in Chapter XLV of *Leviathan*, entitled '*Of* DAEMONOLOGY, *and other Reliques of the Religion of the Gentiles*'.

[985] *Appendix to Leviathan*, 526.

[986] For a detailed and delicate discussion, see Kraynak 1990.

[987] Articulated in terse terms in *Leviathan* VIII, 35. See also Thomas 1965 and especially Williams 2000.

[988] *Leviathan* XXXIX, 248.

the majority of people believed that God is the supreme power in every respect. This is something that Hobbes also takes into account. To put the issue from another point of view, the only imaginable power that can defeat the sovereign is God. Only He is able to offer greater rewards and more horrible punishments. Eternal life is more important than paying taxes, going to prison, or even to dying. The problem of politics culminates in this conflict between private conviction and public conformity, which Hobbes analyses in the case of Naaman, briefly noted in Chapter XLIII of *Leviathan*.[989]

When discussing the conflict between internal faith and external religion, Hobbes refers to the Biblical story of Naaman, a Syrian army leader who converted to Christianity but was forced to continue worshipping Baal. The lesson of Hobbes's interpretation of the story is that Naaman's inner faith to God is more important than his outward ritual worship of Baal. This can be taken to determine the *de facto* extension of political freedom that subjects have in a commonwealth and, consequently, the range of individual freedom to follow one's own moral principles openly. Another, more general reply to the challenge that mantic imagination poses, is his minimalistic theology.[990]

According to Sommerville, Hobbes's political theory does not depend in any significant way on his notion of God.[991] Perhaps this is so, but from this it does not follow that theological issues do not have role in Hobbes's political thinking. A balanced perspective on the issue is provided by Thomas:

> Of course, religion ultimately outlived its magical competitors. […] When the Devil was banished to Hell, God himself was confined to working through natural cause. 'Special providences' and private revelations gave way to the notion of a Providence which itself obeyed natural laws accessible to human study.[992]

Here the relationship between religious belief and scientific thinking is not displayed in antagonistic terms. Instead, Thomas continues, 'magic and science had originally advanced side by side. The magical desire for power had created an intellectual environment favourable to experiment and induction'.[993] It is then perhaps a simplification to represent Hobbes's thinking as purified from all religious issues. This was discussed in the introductory chapter of the thesis when touching the question of Hobbes's atheism. To repeat, the mental world around Hobbes was essentially religious and it is reasonable to think that this had an influence also to his philosophy. One way to see how this was done is to reflect on Hobbes's theological ideas.

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[989] See *Leviathan* XLIII, 330.

[990] On Hobbes's concrete ideas of education, see *Correspondence*, Letter 58.

[991] Sommerville 1992, 138.

[992] Thomas 1991, 765.

[993] Thomas 1991, 770.

The outcome of Hobbes's pondering on the nature of God is a minimalistic theology. In purely doctrinal terms, this theology can be summarised by two tenets which are in accordance with his idea of political obligation and obedience, which, again, if we believe Hobbes, are in accordance with what Christ taught. These are the belief that Jesus is Christ and obedience to laws. Another way to clarify the issue is the idea that Hobbes aimed at a synthesis of natural and Biblical theology.[994] Hobbes's discusses natural theology in Chapter XXXI of *Leviathan*, which is at the same time a summary of Parts I and II and an introduction to Parts III and IV. The chapter tries to describe God's natural kingdom, which is characterised by two features. On the one hand, it is manifest in the principles of natural law, which describe the rationality of nature, but, on the other hand, we have the notion of cruel, omnipotent, and mystical God. Nevertheless, Hobbes emphasises omnipotency, not the severe God of the Old Testament. Partly this might be because he wants to put the natural reasons for religion in their right place, that is, ignorance and the fear of the supernatural are not *religious* reasons for religion, because, properly speaking, religion only exists in civil society, where there is a uniform interpretation of the word of God by sovereign.

Hobbes then has a clear idea that all people should be educated to understand why they are members of a commonwealth. An obstacle to this was the deeply religious atmosphere of the time. For this purpose Hobbes developed his minimalistic theology, which reduced Christian faith to a form that was simple and resistant as possible to doctrinal politics.

In this work, the aim has not been to state the final word on Hobbes, merely to make his philosophy more comprehensible. In Prologue I put forward a view that some of the most familiar epithets attached to Hobbes and his philosophy were more like background principles than fixed doctrines of a complete philosophical system. What remains true is, however, that the ideas that the mentioned doctrines represent are an integral part of Hobbes's philosophy. My point is again simple: all the central labels that have been attached to Hobbes's thinking are important, but they are parts of his rational world view. As Robertson once described Hobbes's philosophy:

> Nobody is more urgent than Hobbes in pointing the distinction between Science and Experience[...] and the opposition runs through all his thought. Here [in his idea of science] it is reasoning against experience; in his psychology it is reason against sense, or wisdom against prudence; in his politics it is reason against custom; in his theology (when he diverges into theology) it is reason against faith, save at an innermost core. Everywhere the aim of Hobbes is to *rationalise*.[995]

[994] Milner, 1988. The analysis in the preceding paragraphs is largely based on this work.

[995] Robertson 1993, 82.

The phrasing reflects my reading of Hobbes in which I have emphasised the role of imagination, on one hand, and diversity of his thinking, on the other hand. The first issue I wish to summarise as follows. Imagination is a capacity that assembles, motivates, and explicates the mind and its functions in order, first, to produce and to create knowledge, and, second, to create harmonious style. When it comes to the second topic, my view is the following. Instead of dogmatically following some fixed doctrines, Hobbes realised that there is not necessarily only one way to make a philosophical argument. For him the objectivity of the world and our knowledge of its objects were self-evident, the harder part was to give a convincing argument that we really do have good grounds for believing this. This gives his philosophy a certain flavour that can be characterised by saying that problems and questions are more important than theories and principles. The outcome of this is an enlightened, rational person, who is able to understand the diversity of nature, man, and society.

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